A Guide to Schenkerian Analysis, based on Neumeyer & Tepping 1992 (File 1)

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Abstract:

This essay is an introduction to Schenkerian analysis, one model for linear analysis/interpretation of music. This condensed version of an out-of-print manual, co-authored with Susan Tepping, provides the basis of an efficient learning experience and includes only the material from the original book necessary to that end. Two supplementary files contain appendices (File 2) and text and figures from the original book deleted from this file (File 3).

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INTRODUCTION

Schenkerian analysis is the original form of linear analysis, a collective name for those modes of music analysis that focus on the production of graphic representations of hierarchically organized streams. The object of this document (File 1) is to support a clear and efficient course of training in Schenkerian analysis of traditional tonal music, by which is meant Western art music in the eighteenth and nineteenth centuries, or roughly the period from Bach to Brahms. Two accompanying files are supplementary and optional: File 2 consists of a series of appendices to this document; File 3 compiles material from the original book publication deleted from the present essay.

The music theory of the Viennese pianist and author Heinrich Schenker (1868-1935) is unique in its heavy emphasis on counterpoint or voice leading and in its system of structural levels. The particular strengths of the analytic method are its ability to interpret and represent counterpoint or voice leading on a broad scale, to connect this voice-leading motion systematically to harmony, and to integrate these with an expanded concept of motivic development. Harmony and voice-leading (partwriting; counterpoint) are integrated in a top-down or "chain of being" hierarchy. The top (most abstract) level is a fundamental structure or *Ursatz* that combines a single upper voice (melody) and a bass voice (harmony) in counterpoint (based on an early-18th century pedagogical construction known now as "strict counterpoint" or "species counterpoint," the model for which goes back to mid-16th century compositional pedagogy). The ideal forms of this strict counterpoint are expanded ("prolonged") within a thick harmonic/voice-leading web that William Rothstein has called the "imaginary continuo."[1]

Since Schenker talks about three broad levels of activity—background, middleground, and foreground—it is usually assumed that analyses should have three levels corresponding to these. In fact, this is often not the case. The number of levels may vary according to the complexity of the piece or according to what the analyst wishes to show, and these levels may be distributed in differing ways. A common procedure is to show one background, two or more middlegrounds, and one or, very occasionally, two foregrounds. *Five Graphic Music Analyses* may serve as our model: only one of the analyses has three levels that correspond nicely to background, middleground, and foreground

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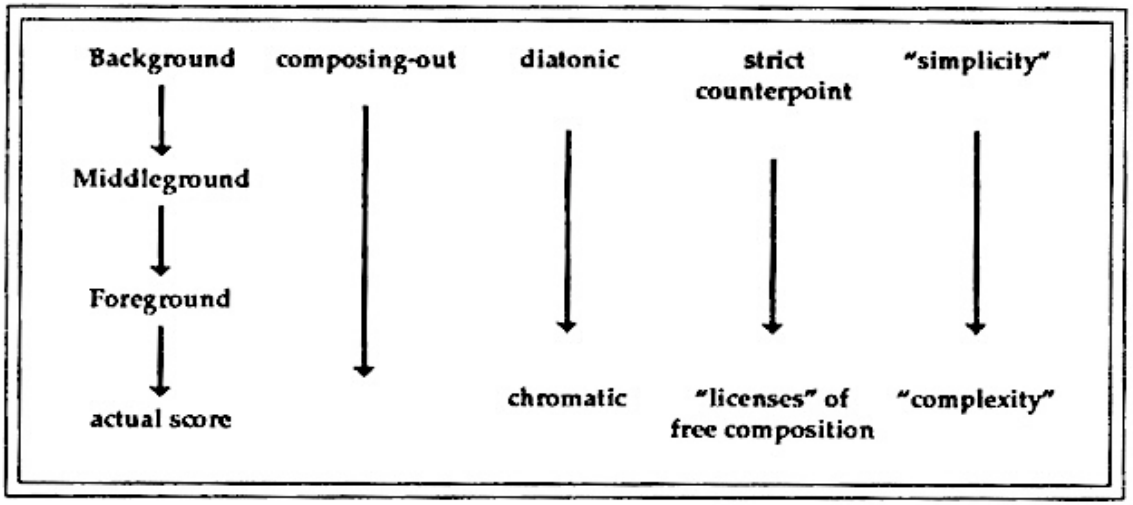
[1] William Rothstein, "Rhythmic Displacement and Rhythmic Normalization," in Allen Cadwallader, ed., *Trends in Schenkerian Research*, 87-113. The "imaginary continuo" is very close to -- but still distinct from -- other terms used in the literature, such as "metric reduction," "chordal reduction," and "harmonic reduction."

(*Well-Tempered Clavier,* Vol. 1, C Major Prelude). In the other analyses, a background (fundamental line and bass arpeggiation) is at the top of the page, aligned with three numbered middlegrounds (labelled *Schichten,* which means "levels" or "layers") and an *Urlinietafel*, which is a special type of foreground graph. The *Urlinietafel*, a non-literal translation being "score foreground," is essentially a foreground graph with barlines and some motivic figures or other literal score features shown.[2]

The table below shows the relationship of the structural levels (background, etc., at the left) with composing-out (prolongation, or expansion of elements of one level in the next), harmony (diatonic at the background, possibly more and more chromatic in the foreground), strict and free counterpoint, and a broad principle of simplicity opposed to complexity.

Table 1: Composing-out and related concepts



We must emphasize that, although the manual of instruction contained in this document may be combined with basic reference sources as the material for a complete course, it is not intended as a substitute. Some technical in-

[2] The fifth analysis in *Five Graphic Music Analyses* is not complete; it shows only the development section of Haydn, Sonata in Eb Major, Hob. XVI/49, first movement—essentially three levels of foreground.

formation and certain skills are most efficiently learned by means of a concise text explanation followed by exercises, but Schenkerian analysis must be taught primarily through an instructor and student(s) working out analyses together. Most importantly, through this the student learns both analytical procedure and notational style.[3] This text, therefore, is a resource but not a self-instruction manual nor is it a substitute for selective reading in the scholarly literature.[4]

For harmonic analysis, Schenker used the Roman numeral labels of the Viennese *Stufentheorie*, an expansion of Rameau's harmonic theory that originated with Simon Sechter in the nineteenth century. Only upper-case numerals are employed, inversions are not indicated (no figured-bass symbols are added), and alterations are shown with accidentals to the right of the numeral. Thus, "I" is the tonic in both major and minor modes; "II" may indicate a diminished or a minor triad on the second degree of a minor key; and "III#" would be a major triad on the third degree of a major key. Since the labels of *Stufentheorie* are little used in the United States, we have not hesitated to change to the far more common labelling system derived ultimately from Gottfried Weber and E. F. Richter, but more directly from Percy Goetschius and Walter Piston. Chord quality is shown by upper and lower case, inversion by added figured-bass symbols. Thus, "I" is the tonic in major, but "i" is the tonic in minor; "v" is the minor dominant, "V" the major dominant; "ii°" is a diminished triad, "III^{+}" is an augmented triad; "I6" is the tonic triad, first inversion; "V4/3" the dominant seventh, second inversion; and so on. The reader is warned, however, that in many cases the chord labels are applied only to structural or prolonged harmonies and the inversion of the first or subsequent presentations of a chord are often not shown (especially in middleground graphs). Furthermore, when progressions are simple or very stereotyped, or when the analytic notation itself "reads" the chords (as in the beamed or slurred I-V-I groups), harmonies are often not identified at all—this is especially true in the later chapters of the manual.

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[3] The notational style of Schenkerian graphs can vary widely; Schenker himself did not seem to promote a strictly systematized graphing style—the closest he might be said to have come is in *Five Graphic Music Analyses*. The style used in this manual is based on what the first co-author learned from Allen Forte in the early 1970's (very different from what is taught in the Forte and Gilbert textbook). Samples of Forte's notational style can be seen at the Allen Forte Electronic Archive (AFEA).

[4] The closest thing to a self-instruction manual is Tom Pankhurst's Guide to Schenkerian Analysis (2001; updated in 2008, according to the home page). In the United States, the most commonly used traditional textbook is Allen Cadwallader and David Gagné, *Analysis of Tonal Music: A Schenkerian Approach*, 3d edition (2010).

CHAPTER 1. SUMMARY OF ANALYZED BASS NOTATION

Tonic and Dominant Patterns
Expansion of I-V-I through Use of Pre-Dominant Harmony
Expansion of I-V-I through Arpeggiation
Expansion of the Harmonic Cycle through Inversions
Expansion using vi or VI
Filling-in of Harmonic Intervals in Functional Patterns
Expansion using Sequential Patterns, including Circle of Fifths
Implied Notes
The Subdominant
The "Deceptive Cadence"
The Minor Key
Unfolding: A Special Symbol
Bass-line sketch for Beethoven, Menuet in G, WoO10n2: step-by-step

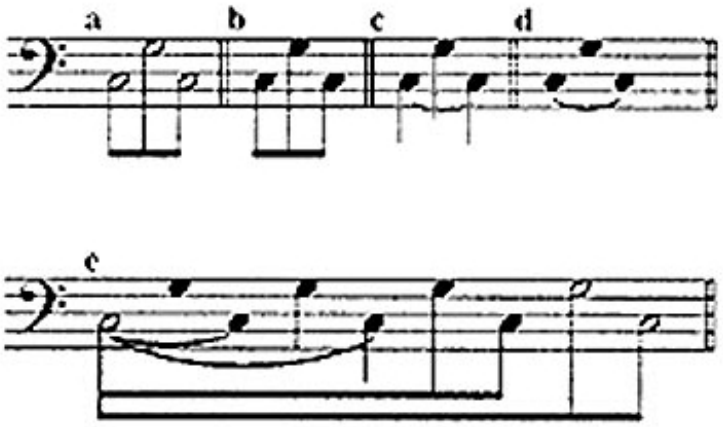
One cannot create Schenkerian readings of a traditional tonal musical composition without a thorough analysis of the harmonic hierarchies realized through the movements of the bass line. Thus, we start with the bass, which can be read for the most part according to the harmonic functions familiar to all trained classical musicians.

These bass-line sketches will often require adjustments when used for complete analyses later on, but the adjustments are usually few and are mostly matters of notational details, but they can also result from the occasional overriding of functional relationships by contrapuntal figures. The upper parts (all those above the bass) will sometimes be mentioned, but they are normally much more complex and, in any case, require the bass to aid in their interpretation. Chapter 4 contains an informal introduction to upper-voice analysis. Even when we attempt complete, formally constructed analysis graphs involving all components of a piece (in Chapters 5 and following), we will often find it to our advantage to begin by working out a bass-line sketch.

TONIC AND DOMINANT PATTERNS[5]

Differentiation of functional levels is shown by the manner in which pitches are notated:

EXAMPLE 1.1 I-V-I patterns



1. "Open notes" are those of greatest structural importance (background or first middleground).
2. Stemmed closed notes are of lesser importance (middleground or foreground).
3. Unstemmed closed notes are subordinate (foreground only).

Harmonic progressions are grouped together by beams (at earlier levels)[6] or by slurs (at later levels): see Ex. 1.1. Several embedded I-V-I patterns are in Ex. 1.1e. The first note, C, is a background note prolonged or embellished by two I-V-I groups, the longer-range one shown with stemmed and slurred closed notes, the more immediate one with slurred but unstemmed closed notes.

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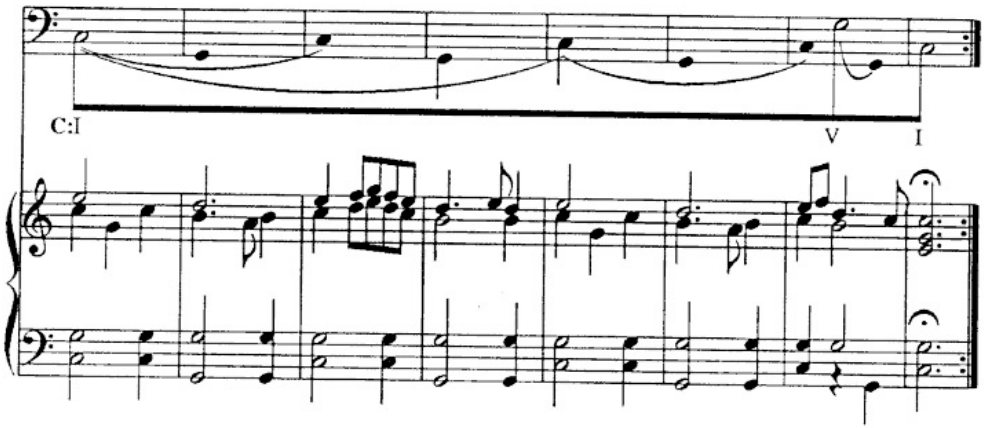
[5] A summary table of the notation presented in this chapter may be found in File 2, Appendix 1.

[6] In Schenker's generative conception, the background comes first, the foreground last (he believed that the musical genius "composed out" from the background. Thus, background is earlier than middleground, middleground is earlier than foreground. By the same reckoning, foreground is later than middleground, and middleground is later than background.

It is very important for an understanding of the notation of graphs (and the relationship of prolongation and structural levels, for that matter) to recognize that the initial C functions as the first note of a I-V-I group at all three levels. The general principle is that a note that belongs to one level is active at all later levels. Thus, the first C belongs to the background but initiates—and is part of—each of the two embellishing functional groups.

The nesting of I-V-I patterns is illustrated by an excerpt from one of Kuhnau's Biblical Sonatas (Ex. 1.2). The formal hierarchy of phrase and period affects the nestings used: bars 1-5 are rendered as a I-V-I pattern with stemmed closed notes, because they are associated with harmonic progression across the phrase, but bars 5-7 are treated as subordinate (unstemmed closed notes). This small-level interaction between the tonal and voice-leading structure and formal design is a preview of considerations that will remain a constant factor throughout our work with bass-line sketches (and beyond).

EXAMPLE 1.2 Johann Kuhnau, Biblical Sonata "David and Goliath," Dance of the People, bars 1-8[7]



As the commentary above suggests, the hierarchy of I-V-I patterns in most compositions will depend on formal design (variants or exceptions derive from special linear patterns of the upper voices).[8]

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[7] EXAMPLE 1.3 Schubert, *Valses sentimentales*, D. 779, no. 3 is in the published book but was deleted here for the sake of the most efficient possible presentation. **This and similar examples are reproduced in File 3**.

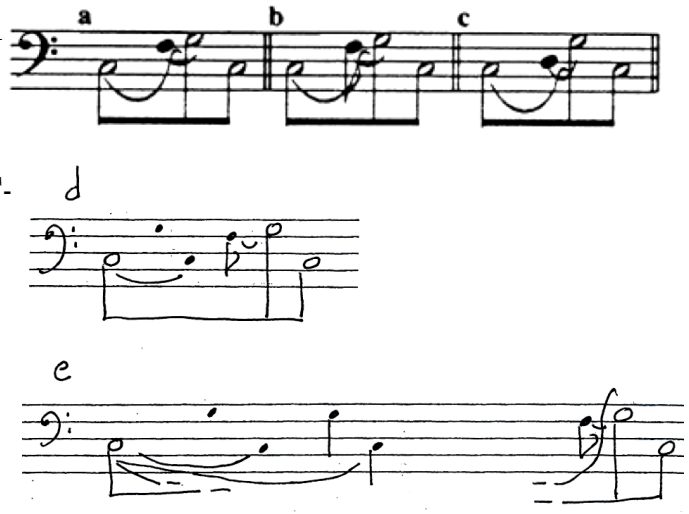
[8] In *Five Graphic Music Analyses*, graphs of certain structural levels show I-V-I groupings with "whole notes"; that is, unstemmed open notes slurred together but not beamed. See, for example, the *Ursatz* (background) for the J. S. Bach setting of the chorale "Ich bin's, ich sollte büssen." This notation is acceptable only for the background, and thus only for the primary structural bass arpeggiation(s), but this "whole note" graphing style is almost never used by Schenkerian analysts today.

EXPANSION OF I-V-I THROUGH PRE-DOMINANT HARMONY

Tonic and dominant patterns can be expanded by the insertion of a pre-dominant, in progressions such as I-IV-V-I or I-ii-V-I (generalized functions: tonic-subdominant-dominant-tonic or T-(S)-D-T), as shown in Ex. 1.4 below. In the first model (Ex. 1.4a), the chord above F could be either C: IV or ii6 —the notation remains the same in either case. The interlocking slurs are a special notation convention. In the second model, the flagged note draws more attention to the complete harmonic cycle. You may use the first and second models interchangeably. The third model shows the notation when ii, rather than ii6, is used—a flagged note would also be possible.

The final two models (Exs. 1.4d & e) show common alternatives that reduce visual clutter. Ex. 1.4d deletes the slur from I; note that the flagged note is *required* now. Ex 1.4e has an incomplete beam and slur from I to V. These can be useful in larger graphs with many elements.

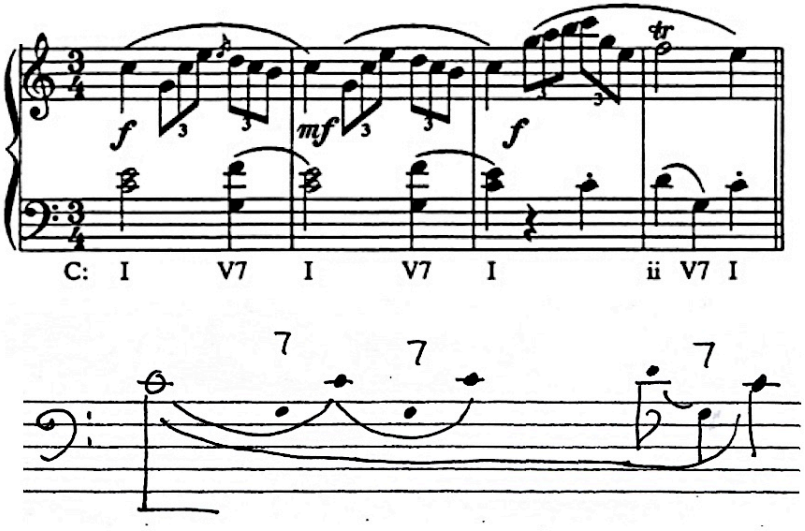
In Ex. 1.5, lower-level I-V-I figures in bars 1-3 embellish the I of the T-(S)-D-T cycle.[9]



EXAMPLE 1.4 I-IV (ii)-V-I patterns

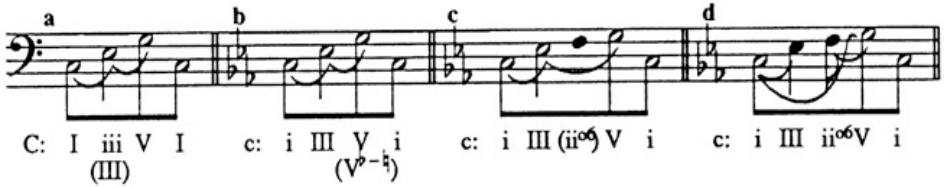
[9] In *Five Graphic Music Analyses*, the first middleground for the Bach chorale shows the typical notation of a full harmonic cycle, including the interlocking slurs for I-IV-V. See also the first middleground for the Prelude in C Major; third middleground for Chopin, Etude in F Major, three instances in bars 1-75; second and third middlegrounds, Etude in C Minor, end. The second middleground of the F-Major Etude also appears in *Free Composition*, Fig. 7,b, with slightly different contents, including a renotated harmonic cycle in bars 61-95.

EXAMPLE 1.5 Haydn, Sonata in C, Hob. XVI/1, Menuet, bars 1-4



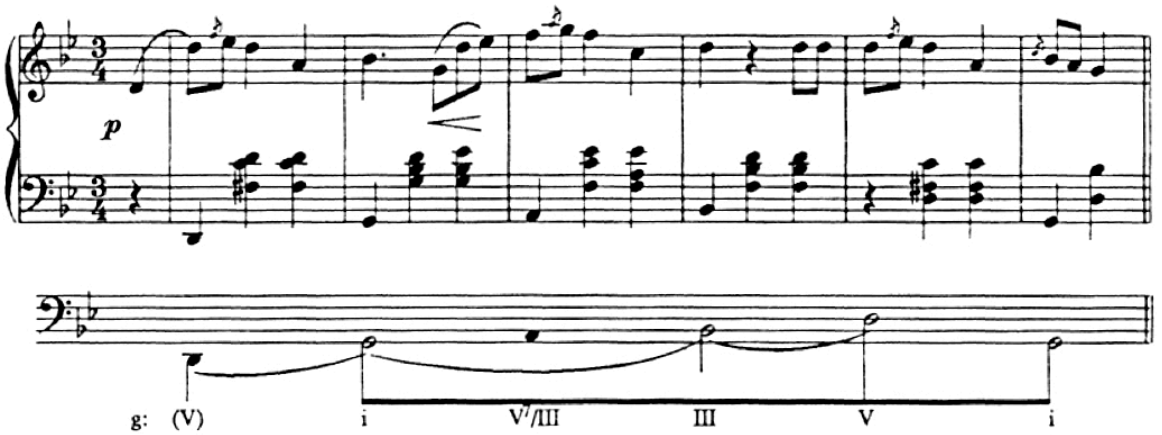
EXPANSION OF I-V-I THROUGH ARPEGGIATION

EXAMPLE 1.6 Patterns with iii or III



The span from I up to V may be split into two thirds, generating I-iii-V or I-III-V; in minor, i-III-v or i-III-V (see Exs. 1.6a & b). The last of these is probably the most common—Ex. 1.7 reads a typical progression in a Chopin Mazurka. When a passing tone is placed between the third and fifth degrees, alternatives arise. In Ex. 1.6c, the III as "third- divider" has priority and ^4 is a passing tone (even if it supports a chord); in Ex. 1.6d, the III prolongs the tonic but the primary progression is the harmonic cycle, i-ii°6 -V-i. Schenker says a correct reading relies on the upper parts: "The filling-in [from ^3 to ^5] can also take on other meanings, depending on the position of the tones of the fundamental line" (*Free Composition*, 30). For our purposes now, the best choice is a matter of context: if the III is so prominent in the composition that reducing it to a "mere" elaboration of the tonic would seem to distort the music, then use the model of Ex. 1.6c; otherwise, favor Ex. 1.6d.

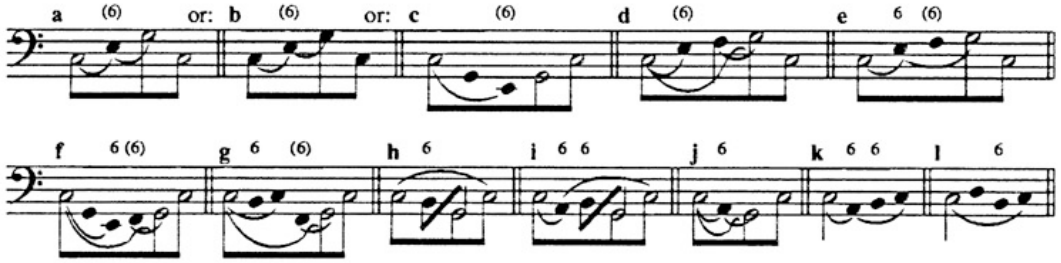
EXAMPLE 1.7 Chopin, Mazurka in G Minor, op. 67, no. 2, bars 1-6[10]



EXPANSION OF THE HARMONIC CYCLE THROUGH INVERSIONS

Chord inversions in I-V-I motions or in the complete harmonic cycle result in arpeggiations, lines, and neighbor notes, as illustrated in Ex. 1.9. In the fourth model (Ex. 1.9d), there is no slur between the second and third notes (scale degrees ^3 and ^4). This notation avoids any chance of confusing the primary functional relationships: I and I6 are a group, but I-IV (or ii6)-V-I are another, distinct group (and at a different structural level, too).

EXAMPLE 1.9: Expansion of the harmonic cycle



If it is necessary to bring out the third-line ^3-^4-^5, it is best to remove the stem from ^4 and the cross-slurs, as in Ex. 1.9e. The interpretation you pick depends on the individual compo-

[10] Deleted: EXAMPLE 1.8 Chopin, Etude in F Major, op. 10, no. 8, summary of progression in bars 1-61.

sition, but for our purposes now, give priority to the functional relationships and notate as in Ex. 1.9d. (All this, of course, is similar to the advice given in the previous section for identical bass patterns involving III rather than I6.)

Interlocking slurs are not used for Ex.1.9k, even though the underlying functional progression is I-IV-V-I (precisely, I-IV6 -V6 -I). This type of passage emphasizes the melodic quality of the bass motion rather than the harmonic or functional one, revealing the ambivalence of the bass and its progressions: it is the carrier of harmony but it is also a voice in the voice leading and thus can create melodic figures, too. Learning to distinguish between these different uses is excellent preparation for work on complete analyses (that is, analyses of all the parts).

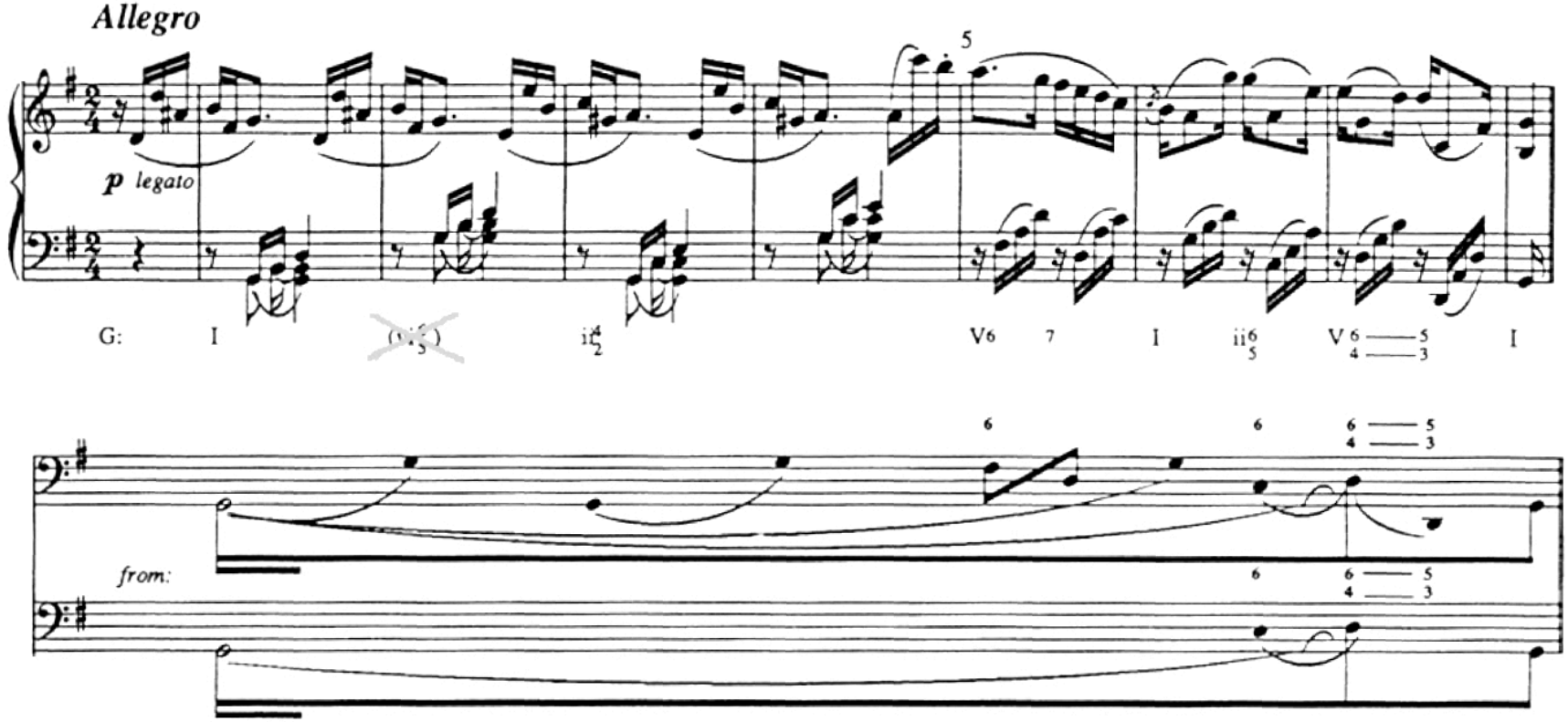
In Ex. 1.10 below, the first tonic harmony is prolonged by a subordinate functional cycle (I-ii4/2 -V6/5 -7 -I), then another cycle is used for the cadence. In bars 1-5, the bass might be understood either as a I-V-I bass arpeggiation or as a neighbor motion G-F#-G. (The special symbol used in bar 5—unfolding—is explained in a section near the end of this chapter.)

Note that in the cadence the chord usually labelled as I6/4 appears. Like many other theorists at the time, Schenker understood this chord as part of a "cadential dominant" figure, thus not a tonic chord at all but a dominant with double embellishment by 6-5 and 4-3—so: $_{V}$6/4 to 5/3 (=cadential dominant), not I6/4 -V. The figured-bass symbols should go above the V; this is a convention, but it helps to avoid misreading as a V6/4, a second inversion of the dominant triad.

The "cadential dominant" is perhaps the most important of the class of "contrapuntal chords"; that is, chords in which the melodic functions overwhelm and cancel out any possible harmonic function—two other common instances are IV6/4 in the progression I -IV6/4 -I and the actual V6/4 in the progression I -V6/4 -I6.

Second inversion major or minor triads, then, are used as passing chords (as in I -V6/4 -I6), as auxiliary or neighboring chords (as in I -IV6/4 -I), as part of a chordal arpeggiation (as in I-I6 -I6/4 -I), or as part of a cadential dominant figure. Only very rarely will a second inversion triad act as a harmonically functioning chord.

EXAMPLE 1.10 Beethoven, Sonata, op. 14, no. 2, I, bars 1-7:[11]

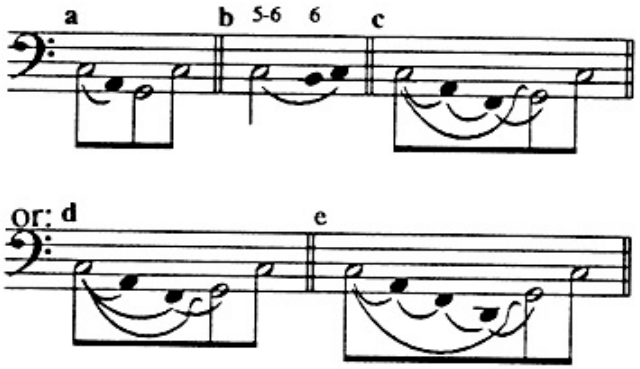


[11] Deleted: EXAMPLE 1.11 Mozart, Symphony No. 35, III, Trio; EXAMPLE 1.12 Haydn, Sonata in C, Hob. XVI/1, Menuet.

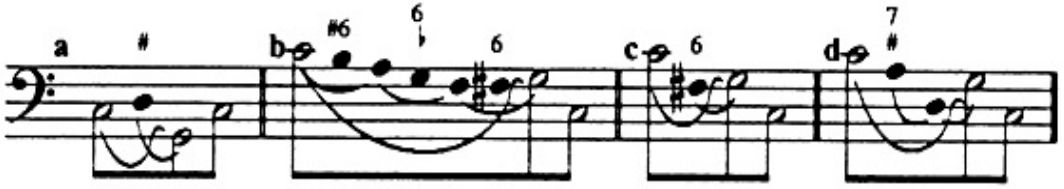
EXPANSION USING vi OR VI

In the first and second models of Ex. 1.13, vi (or VI) simply prolongs the tonic; in the remaining models, vi is the middle element in a foreground arpeggiation from I down to IV (or ii6). The last model extends the series of thirds by including both scale degrees ^4 and ^2 (perhaps supporting IV and ii).

EXAMPLE 1.13 Expansion using vi or VI (tonic substitutes)[12]



EXAMPLE 1.16 Secondary dominant and diminished chords

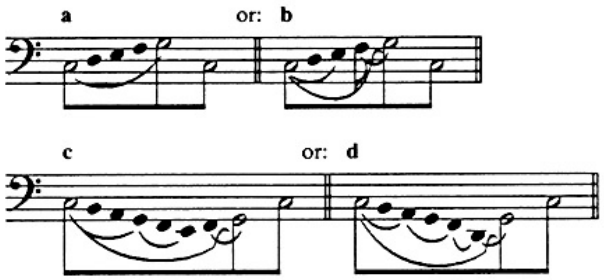


[12] Deleted: EXAMPLE 1.14 Schubert, Wiener-Damen Walzer, D. 734, no. 1; EXAMPLE 1.15 Schubert, Wiener-Damen Walzer, D. 734, no. 13.

FILLING-IN OF HARMONIC INTERVALS IN FUNCTIONAL PATTERNS

EXAMPLE 1.17a Filling-in of harmonic intervals

EXAMPLE 1.17b:[13]



EXAMPLE 1.17b Alternate to the third model

A few common methods of filling in harmonic intervals appear in Ex. 1.17a: stepwise motion through the fifth from I to V, through the descending tonic-triad arpeggio, and through descending thirds. Many others are possible, such as lines with chromatic passing tones or embellishments of some or all of the individual tones in the line. The first and second models in Ex. 1.17a involve the same notes but differ in their interpretations—you would choose one or the other depending on the situation. The first draws attention to the line filling the fifth but ignores any subdivisions according to functional groupings; the second shows those subdivisions but seems to break up the line. The first model is probably more appropriate for foreground events; the second may be used at any level.

In Ex. 1.17b is an alternative to Ex. 1-17a-c. The same five notes are now understood as two third-lines because the entire pattern prolongs the first dominant, G.[14]

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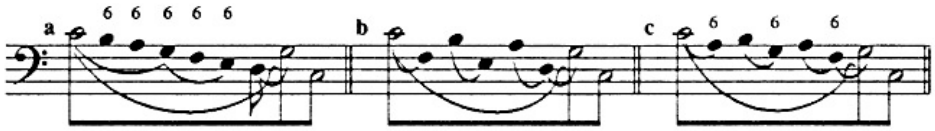
[13] Deleted: EXAMPLE 1.18 Beethoven, Piano Sonata, op. 14, no. 2, I, bars 1-23.

[14] In *Five Graphic Music Analyses*, the bass in the Bach chorale analysis, bars 6-11, fills in the space from V (Eb in bar 6) to I (Ab in bar 11) with a fourth-line (4-Zug) that also includes a chromatic passing tone, E-natural. The score foreground of the C-Major Prelude shows the scalar filling-in of the coupling C4-C3 in bars 1-19; the steps of this line are accompanied in parallel tenths by the uppermost voice. In the Chopin C-Minor Etude, I-V is filled in three times; the second of these is a fully chromatic descent (see bars 21-41 of the score foreground) that expands the underlying diatonic descent of the middleground. A similar chromatic descent occurs in the score foreground of the F-Major Etude, bars 29-41.

EXPANSION USING SEQUENTIAL PATTERNS, INCLUDING THE CIRCLE OF FIFTHS

EXAMPLE 1.19a Expansion using sequential patterns



The figures in Ex. 1.19a & b [Ex. 1.19b is on the following page] are often associated with traditional melodic sequences, but they also represent a more general class of repeated harmonic or voice-leading patterns or streams of parallel intervals, a class that Allen Forte called "linear intervallic patterns."[15] In order to interpret such patterns correctly, we must of course take into account more than the bass line, but we can still conveniently and accurately represent them in a bass-line sketch using traditional figured-bass symbols.

Normally, the first and last chord (or two) of a linear intervallic pattern form the framework, with the remainder acting as prolongations. Figures of this kind are primarily contrapuntal rather than harmonic and belong to the foreground, but occasionally elements in them are used in connection with middleground or even background motions. In such cases, the pattern is not interpreted uniformly but must be broken up into components belonging to earlier and later levels.

Streams of parallel intervals are usually formed by thirds, sixths, or their compounds, tenths and thirteenths (see the first model in Ex. 1.19a). Parallel sixths are easily marked in the bass-line sketch, since they will typically form streams of parallel 6/3 chords and thus can be identified with a series of figured-bass symbols "6." Parallel thirds or tenths may be treated similarly, using the figure "3" or "10."

The second and third models of Ex. 1.19a show forms of the diatonic "circle of fifths" progression, from which most other linear intervallic patterns derive. The voices to consider are the bass and the soprano (or main upper voice). Among the most common figures are the following: 5-6 or its reverse 6-5, 5-8 or its reverse 8-5, 5-10 or 10-5, 7-6 (but not 6-7), 7-10 or 10-7, and 8-10 or 10-8.

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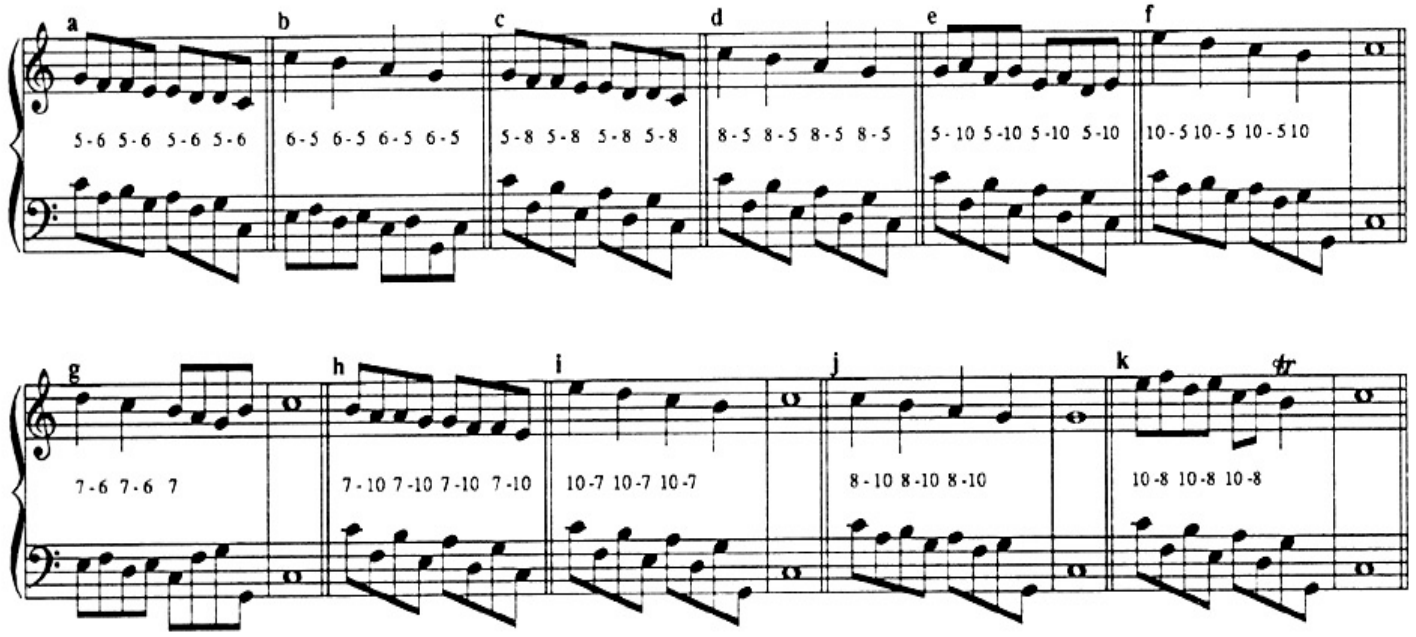
[15] See his *Tonal Harmony in Concept and Practice*, Chapter 11; also, Forte and Gilbert, Chapter 4, p. 83.

Ex. 1.19b shows examples of each of these with the second or third model as the bass.[16]

EXAMPLE 1.19b Interval patterns[17]



[16] In *Five Graphic Music Analyses*, the score foreground of the C-Major Prelude shows a contrapuntal pattern of parallel tenths in bars 1-19. The insets above the score foreground of the Bach chorale analysis show the origin of the progression of bars 8-10 in a similar pattern of parallel tenths.

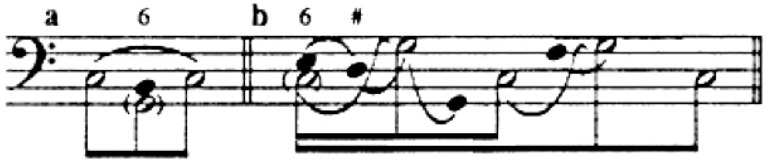
[17] Deleted: EXAMPLE 1.20 J. S. Bach, Invention in G Major, bars 1-7; EXAMPLE 1.21 Chopin, Mazurka, op. 6, no. 1, bars 1-10; EXAMPLE 1.22 Chopin, Mazurka, op. 67, no. 2, bars 21-24.

IMPLIED NOTES

Notes in parentheses are "implied"; that is, the requirements of the earlier structural levels lead us to expect some tone to occur in a particular place, but due to rhythmic displacement or some interfering voice-leading event, the tone does not actually sound or else sounds in the wrong octave.

Implied notes are more likely in the upper parts, but two instances proper to the bass are shown in Ex. 1.23.

EXAMPLE 1.23 Implied notes[18]



The first model shows the unusual case of a first-inversion structural dominant, which may occur at either middleground or background. In this instance, it is acceptable to notate the implied root of the dominant. The second model shows a somewhat more common phenomenon: the opening tonic harmony lacks its root in the bass. The clarity of the bass-line sketch is assured by showing this implied structural tonic tone. This model is also useful for those nineteenth-century pieces that do not begin with tonic harmony (though they do define the tonic key) but move clearly to the dominant or other degree at the first main structural division.

Schenker uses notes in parentheses for two or three different purposes. Two instances in *Five Graphic Music Analyses* where implied notes are used in the manner described above are:

1) Haydn Eb-Sonata, second foreground (middle system), beginning. Here the chord in the treble staff shows pitches that we assume to be the correct disposition of the upper voices from the exposition (whose main features are given in capsule form at the upper left corner). The two notes in parentheses at that point in the score foreground have the same source.

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[18] Deleted: EXAMPLE 1.24 Debussy, Prelude to "The Afternoon of a Faun," bars 1-13.

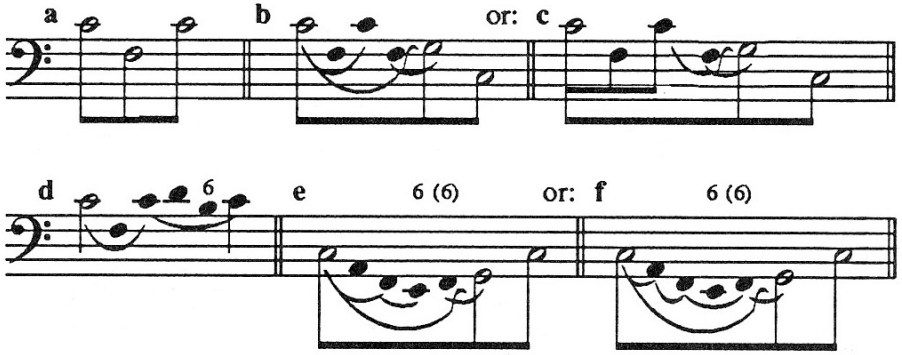
2) Chopin F-Major Etude, third middleground and score foreground, bar 55, bass. The bass arpeggiation leads us to expect C2, but the score has only C4.

In the Bach chorale analysis, bars 3 and 9, Schenker uses parentheses for a different purpose: as a way to isolate decorative tones that are not part of the main foreground progression.

THE SUBDOMINANT

The first model in Ex. 1.25 shows a background dividing subdominant, a rare occurrence even in the later nineteenth-century music where you might encounter it. The other models show more typical cases. In the second, the two subdominants function quite differently: a divider first embellishes I (as I-IV-I) but another subdominant then leads to V. Exs. 1.25d & e show variants of models from Ex. 1.9. In the first case, the descending sixth, C4-E3, is prolonged by a subdominant arpeggiation, with the F3 as neighbor note resolving to E3 supporting I6. In the second case, the E2 itself is a neighbor note prolonging F2. Which notation you should use depends on the circumstances of the particular piece.

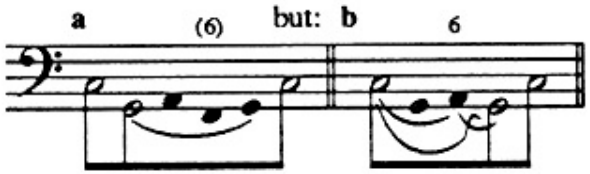
EXAMPLE 1.25 The subdominant[19]



[19] Deleted: EXAMPLE 1.26 Chopin, Mazurka, op. 33, no. 1, bars 1-12; EXAMPLE 1.27 Schubert, Deutscher Tanz, D.970, no. 4.

THE "DECEPTIVE CADENCE "

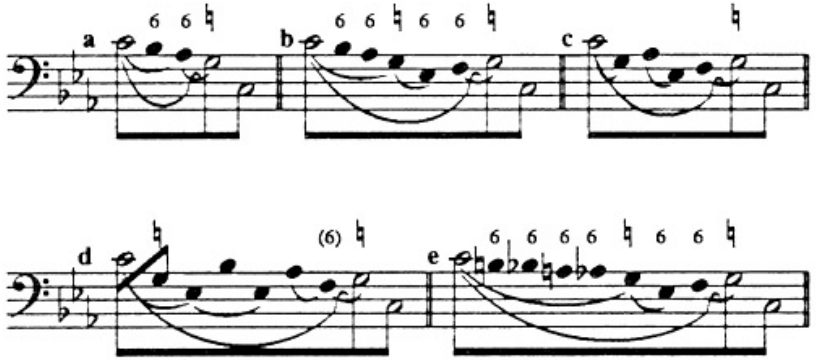
EXAMPLE 1.28 The deceptive cadence:[20]



The deceptive cadence to vi (or VI in minor) is normally treated as a prolongation of the dominant, as in Ex. 1.28a, but in some instances it is better understood as prolonging the tonic, through I-vi. The decision, as usual, depends on context. In general, take the second choice only if vi is a middleground harmony or key region. Otherwise, take the first. (The underlying idea of the expansion of the V is that tension in the dominant is not resolved by the deceptive move to vi, but actually heightened; it is only when the true tonic arrives that the tension is removed.)[21]

THE MINOR KEY

EXAMPLE 1.31 Progressions in minor keys



Most bass progressions are common to both major and minor keys, but the latter does have some traits peculiar to it. Prominent among these are the dominant-minor key region and the related alteration of v to V (that is, Vb-natural) or its reverse (Vnatural-b), but these do not generally affect the interpretation of the bass.

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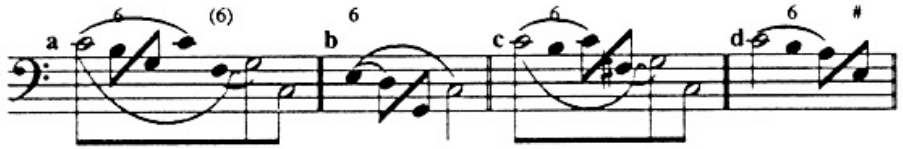
[20] Deleted: EXAMPLE 1.29 Beethoven, Piano Sonata, op. 14, no. 2, I, bars 47-63; EXAMPLE 1.30 Chopin, Mazurka, op. 7, no. 2, section A.

[21] In *Five Graphic Music Analyses*, the Haydn Sonata analysis includes an extended prolongation of vi within the V that is the underlying harmony of the entire development (see the bass of the top system for the V; see bars 81-111 of the other levels for the vi, which changes to VI (as V/ii) near the end of the passage).

Another is the tendency toward enhanced chromaticism, especially in descending lines, as in several of the models in Ex. 1.31.[22] Still another minor-key trait is often crucial to readings of the bass line: the prominence of III (and its key region) gives rise to arpeggiations with almost any combination of motions between i, III, and V (or v), including i-III-i, i-V-III, or i-v-III-i, among others. It is very often appropriate to show such patterns with open notes, if they belong to the background or early middleground. In general, be prepared to assign III greater structural importance in the minor key than in the major.

UNFOLDING: A SPECIAL SYMBOL

EXAMPLE 1.34 Unfolding in the bass[23]



Unfolding is the linear presentation of an underlying harmonic interval. Thirds and sixths are the intervals most often unfolded; Ex. 1.34a shows this—B3-G3 unfold a third that is an interval of the dominant harmony. The same figure might have been notated with a small slur, but the unfolding symbol gives special attention to the interval spanned. Unfolding is especially useful to bring out voice-leading patterns when several intervals are unfolded in a row, as often happens.

As with implied notes, motions best interpreted as unfolding are more likely to occur in the upper parts than in the bass, if only because unfolding is a feature of the foreground and the kind of elaboration that gives rise to it is more likely in the upper parts. In the bass, the unfolding symbol does have a few additional, specialized uses:

1. When linear motion in a cadence is to be emphasized over root motion (functional pattern), as in Ex. 1.34b, where emphasis is on the third-line E3-D3-C3 rather than the functional progression V-I;

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[22] Deleted: EXAMPLE 1.32 C. P. E. Bach, Sonatas, Rondos, and Fantasies, Vol. 1, Sonata no. 3, II, rondo theme; EXAMPLE 1.33 Chopin, Mazurka in G Minor, op. 67, no. 2 (first section only).

[23] Deleted: EXAMPLE 1.35 Schumann, "Von fremden Ländern und Menschen," op. 15, no. 1, bars 1-8.

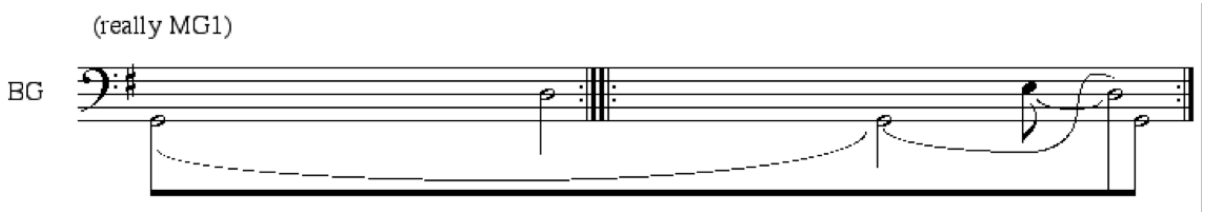
2. When a direct melodic motion of the tritone occurs, as in Ex. 1.34c (direct resolution of the first or upper tone —here, C4—is not required); and

3. When a I-V succession occurs in a half-cadence, but the succeeding phrase does not close the functional cycle, as in Ex. 1.34d (which assumes a continuation other than i or V).

A point of notational detail: Always write the unfolding symbol so that the stems of the notes point "inward," that is, toward the center of the interval being unfolded. This makes a much more compact, better-looking symbol than pointing the stems "outward" or away from the interval.[24]

BASS-LINE SKETCH FOR BEETHOVEN, MENUET IN G, WOO10N2: STEP-BY-STEP

(a) See the score on the next page. Assume closed structure, I-V-I, perhaps with "S";
(b) match major form articulations with harmonic progressions.



The result of (a) is the beamed group with the "S" flagged note. For (b): The D3 at the end of the first part is the dominant arrival in the cadence; G2 in the second part is the tonic arrival for the reprise. Note that the two I-V-I open-note groups not chained along a single beam, but the middleground one is nested inside the background one. Chaining is an option but less preferable. Also note that I have slurred the final V not to the I of m. 1, but to the "nearest tonic," the one that closes the middleground group. This is also an option.

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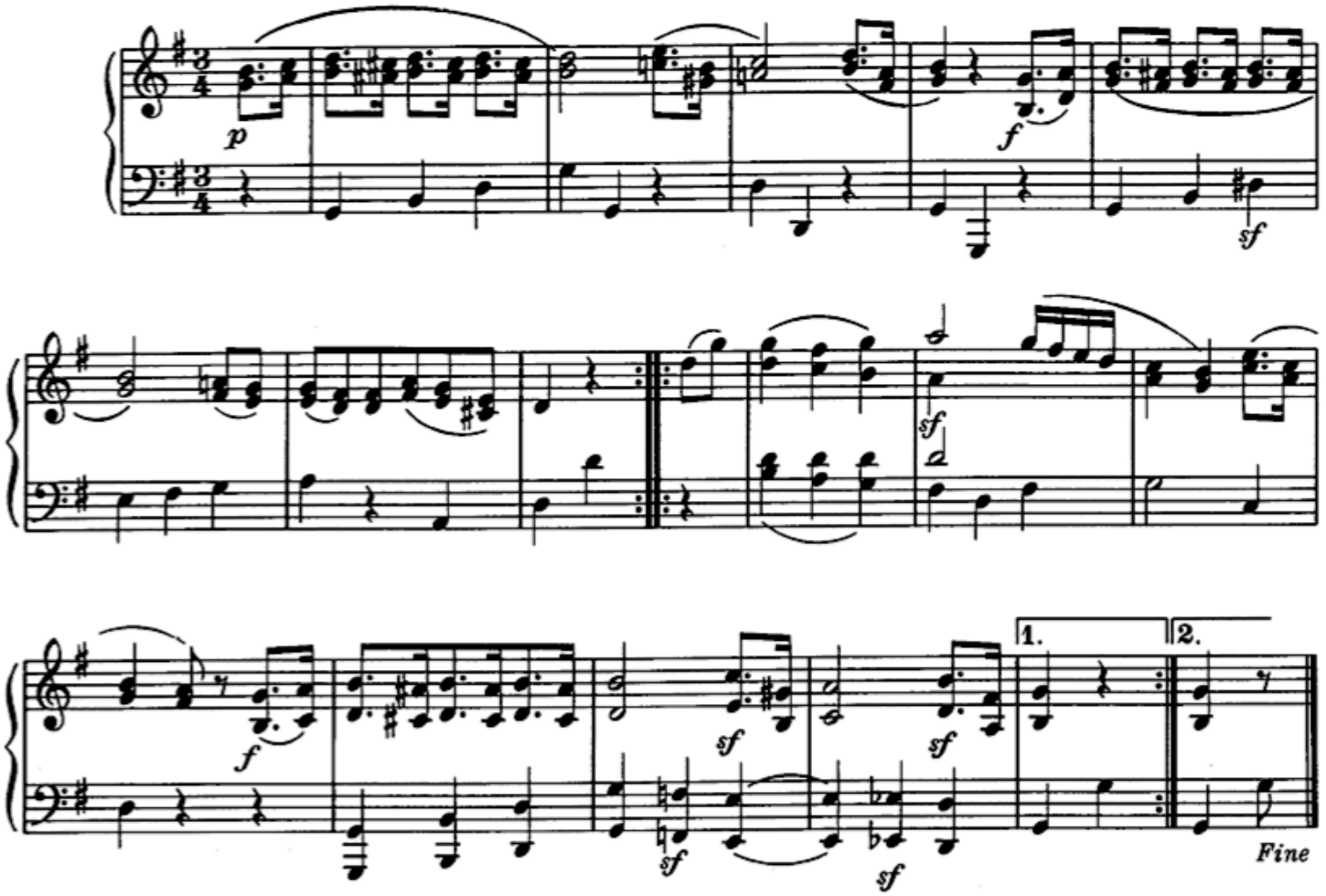
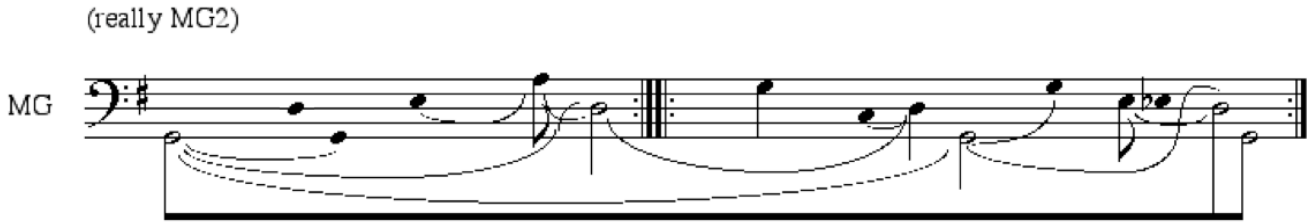
[24] In *Five Graphic Music Analyses*, the score foreground for the Haydn Sonata analysis, bars 112-116, shows paired thirds (actually compound tenths!) as unfoldings. An isolated diminished fifth appears in bars 122-123. The unfolded fourth in the bass system, second middleground and later levels for Chopin, F-Major Etude, bars 51-55, follows model one above. Most of the unfoldings in the bass of the score foreground simply point out octave duplications.

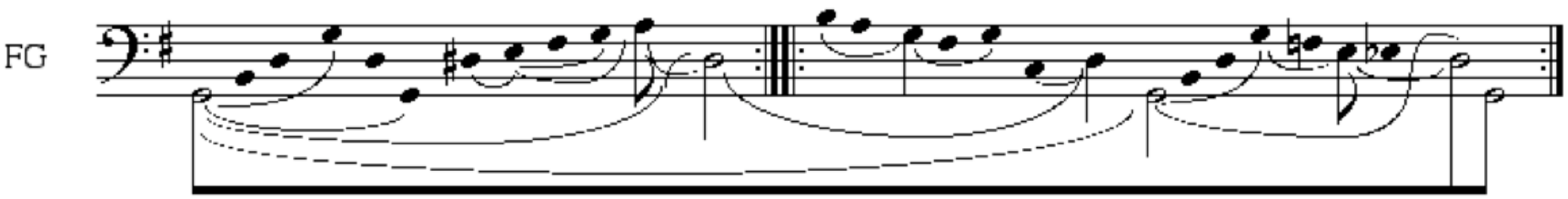

p
f
sf
sf
f
sf
sf
sf
sf
1.
2.
Fine

(c) Within each duration, (1) find the notes or figures that represent the closest connections or most direct progressions to/from the structural notes, or (2) try to characterize the "perimeters"; or (3) block out progressions within each phrase.



In the first phrase, m. 4 arrives again at I via a V7-I cadence, so: I-V-I. In phrase 2, the significant move is the circle of fifths fragment E3-A3-D3 tied to the cadence. In the third phrase, the arrival is on a half cadence and the long slur over the phrase is then basically a recurrent D3 (with G3 = an embellishing chord within a contrasting middle). Alt: I-V-I in mm. 1-8-9 with another I-V-I from 9-12-13. Either one is possible -- we could be more confident of which to pick if we took account of the upper-voice notes in the middleground/background.

(d) Fill in remaining details: NN, arpeggiating thirds, etc.



In the first phrase, a triad arpeggiation through the octave. In the second phrase, a chromatic NN and a third line moving through and prolonging E-G. In the third phrase, a third line through B-G, then a NN. In the fourth phrase, the arpeggiation again and a third line connecting G to E but not prolonging that interval. (An alternative for this last would be just to slur F-natural to E, showing the resolution of the seventh in the secondary dominant.) Finally, a chromatic passing tone Eb3.

CHAPTERS 2 & 3. FORMAL DESIGN AND THE BASS; ANALYSIS NARRATIVES

Formal design is one of the principal means of determining the hierarchies of structural levels for a bass-line sketch. The categories below cover stereotypical designs; they can account for the great majority of compositions, but cannot be expected to account for every possible piece. Where the design is not clear, follow whatever formal and harmonic articulations are available.

SMALL BINARY FORM (TONIC)

We have divided the class of small binary forms into two types, according to the harmony that closes the first half, or A-section. The small binary form[25] is perhaps the most common of all forms in the later seventeenth and eighteenth centuries. In instrumental music, this design will usually have the familiar pairs of repeat signs conveniently articulating two sections, "A" and "B." There is no thematic reprise (or at least no clear reprise) at the point that the structural tonic tone returns in the B-section. The sub-category "tonic" indicates that the A-section closes on tonic harmony.

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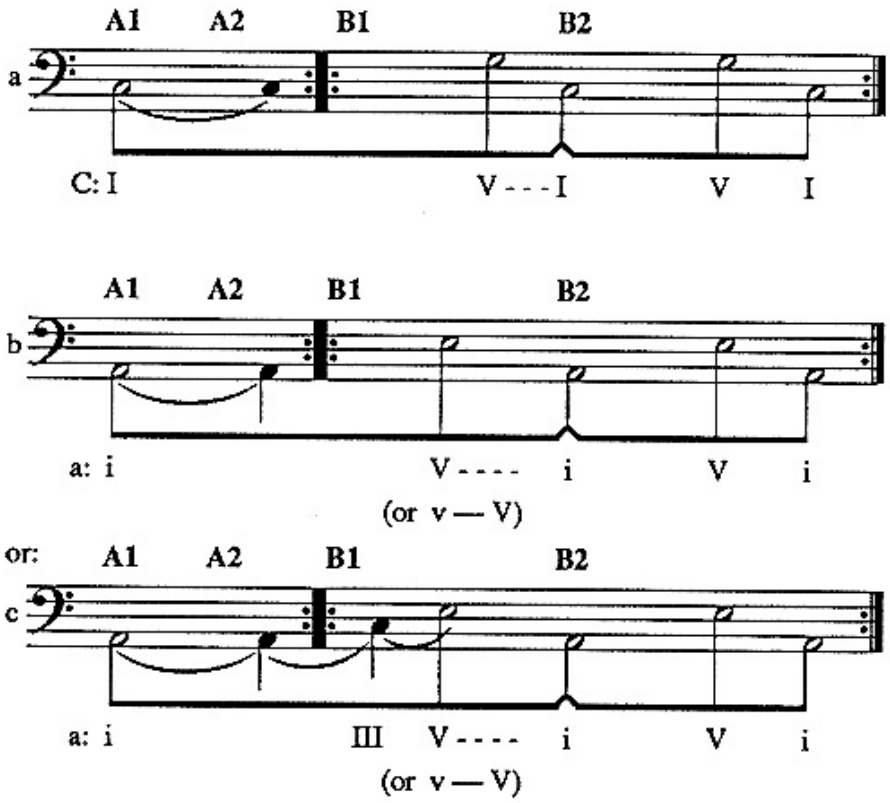
[25] In using "small binary," we are following William Caplin's terminology in *Classical Form: A Theory of Formal Func5ons for the Instrumental Music of Haydn, Mozart, and Beethoven* (1998).

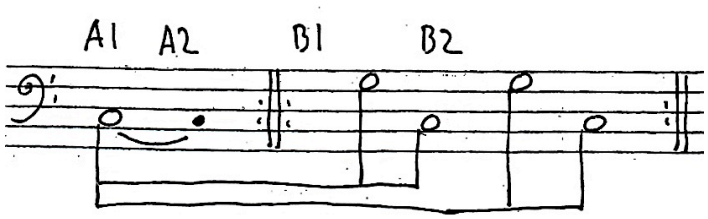
The two sections of all the small binary forms normally have very limited thematic/motivic differentiation; and section B is often longer than section A. In the B-section, B1 may reach the dominant as the goal of its overall harmonic process, which is what the placement of notes in Ex. 2.1 below suggests, or the dominant may be stated immediately and prolonged. Also, the beginning of B2 may be coincident with the clear re-establishment of the tonic, or the tonic may just be "hinted at," to be reached conclusively only near or in the final cadence.

Example 2.1: Small binary form (tonic)[26]



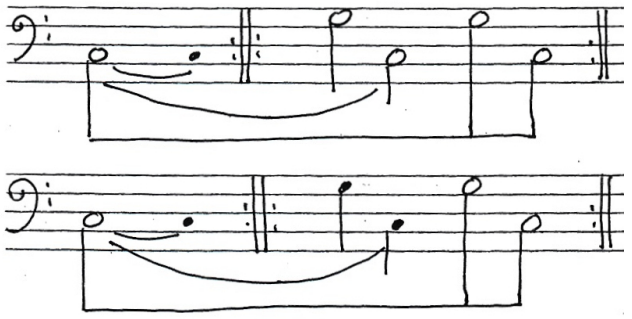
The labels A1, A2, B1, B2, refer to the common articulation of each main section in small binary dances into two parts (phrases or phrase pairs). Three-phrase sections do occur, but infrequently (labels A1, A2, A3 or B1, B2, B3). Larger binary forms often are not articulated so plainly.

Notice the slight indentation of the beam at the point that the tonic returns. This notation is used by some, but by no means all Schenkerians. Below is a version that would actually be more consistent with the hierarchical scheme as we outlined it in Chapter 1:



[26] Examples 2.1 to 2.12 were in chapter 3 of the original publication.

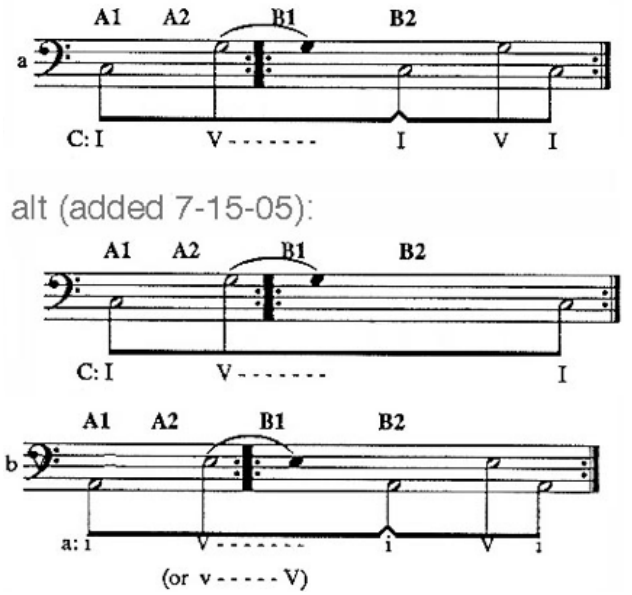
Still other possibilities: The first one at the right is an alternative to the one above, the second assumes the first I-V-I is on a later level.



Note: Binary form is not synonymous with Schenker's "two-part form." Traditional formal designs are "outer form," whereas "inner form" is based on tonal features of the first middleground (but especially interruption). "Two-part" inner form may, thus, be the basis of a variety of "outer" forms that may or may not have two sections.[27]

SMALL BINARY FORM (NON-TONIC)

The small binary (non-tonic) design has most of the same general characteristics as the tonic type, including the two main sections, "A" and "B," with subdivisions A1, A2, B1,and B2, motion toward the dominant or prolongation of the dominant, and lack of a clear thematic reprise at B2.



Example 2.2: Small binary form (non-tonic) with dominant

Of the possible non-tonic degrees for the cadence of the A-section, the dominant (in major or minor keys) and mediant (most often in minor, occasionally in major) are by far the most common (see the models in Exs. 2.2 & 2.3). Motion to the submediant (in major or minor) is somewhat less likely; other degrees are rare.

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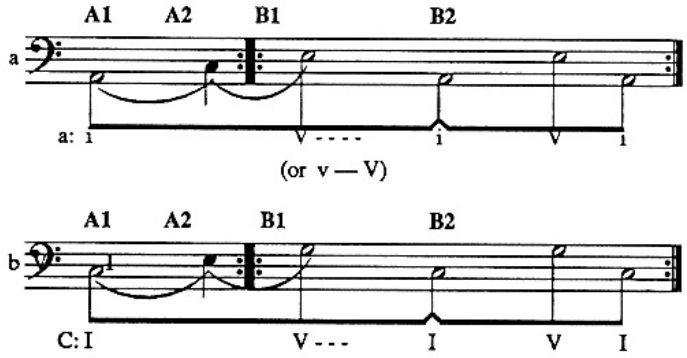
[27] A particularly clear presentation of the notion of "inner" and "outer form" is given by Salzer in *Structural Hearing*, Chapter 8, pp. 223 ff.

Example 2.3: Small binary form (non-tonic) with mediant

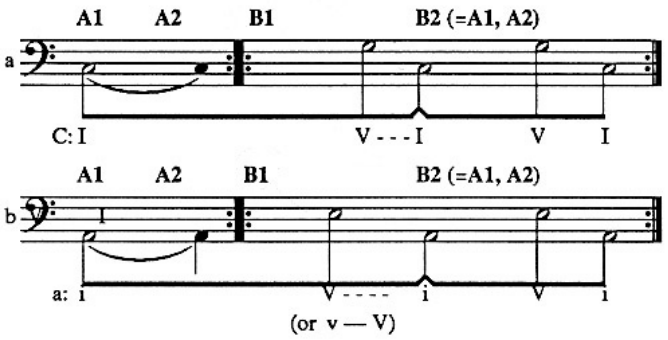


Of the several small binary forms, the dominant type is certainly the most frequently found in the seventeenth and eighteenth centuries; in fact, it may be the most common of all forms in that era. Division B1 in this type must prolong the dominant. A brief return to the tonic is common at its beginning, but this should be normally be interpreted as foreground elaboration of the structural dominant, not as a structural return.[28]

SMALL TERNARY (TONIC) AND ROUNDED BINARY (NON-TONIC)

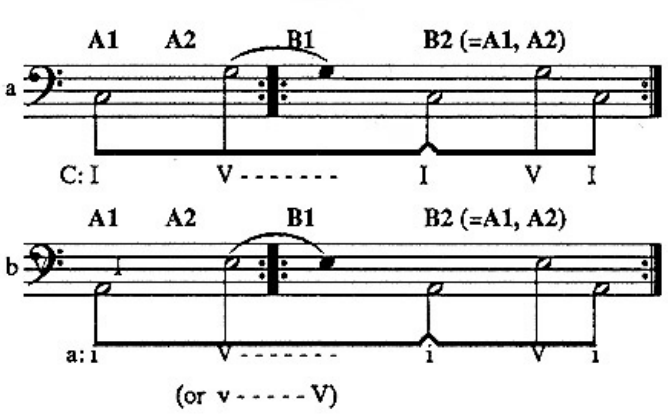
The small ternary form is a three-part form within the two-part binary frame. In both major and minor keys, the bass-line sketch for the tonic type will be the same as for small binary (tonic), with the restriction that the return of the tonic and the beginning of B2 (that is, the thematic reprise) must coincide (Ex. 2.8). The reprise in B2 is usually literal and may consist of A1 only (with appropriate cadence) or A1 and A2 both. The latter is the norm in Classical menuets and their trios, where the small ternary design appears more often than any other type.

EXAMPLE 2.8 Small ternary:



[28] Deleted: EXAMPLE 3.4 J. S. Bach, French Suite in G Major, Gavotte. See page 10, note 6.

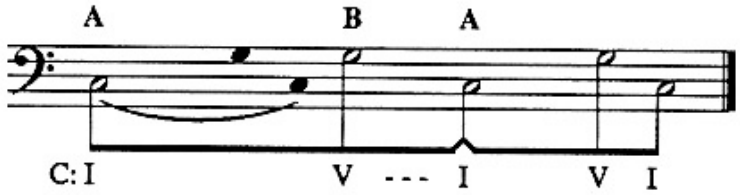
Example 2.9: Rounded binary form



Like the small ternary form, the rounded binary design is a three-part form within the two-part binary frame, this time mixing the small binary (dominant) with the ternary form. In both major and minor keys, the bass-line sketch will be the same as for the small binary (dominant), but the return of tonic and the thematic reprise (at B2) must coincide (Ex. 2.9).

Unlike the small ternary design,the rounded binary design tolerates a wider range of literalness and completeness in its reprise: it may consist of A1 only (with appropriate cadence), A1 & A2 both, or a clearly defined opening segment of A1 followed by variation or development of the original material. The latter is apt to occur in the most stylized examples of Baroque dances that normally are simpler in design, such as the gavotte or bourrée. A reprise of A2 only—without A1—is often called "balanced binary" and is best known through the sonatas of Scarlatti, though it is occasionally found in Baroque dance movements as well. In such cases, the structural tonic may return at some point after the beginning of B2, not coincident with it.

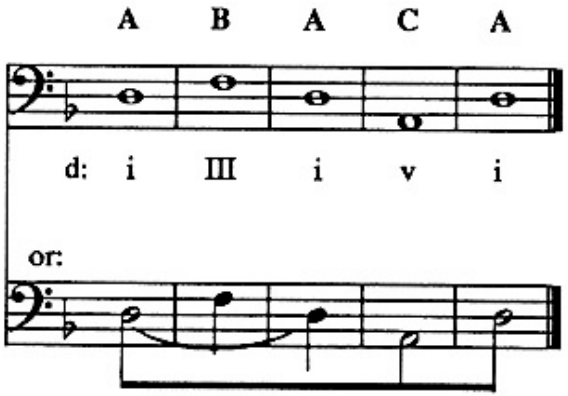
Caplin's term "large ternary form" refers to those larger-scale pieces in an ABA design but without the two-part binary frame. The notation is essentially the same as for the small ternary form--see the model in Ex. 2.11. Often found in solo vocal music (as in the da capo aria and in some numbers named "rondo" in Mozart's comic operas) and in slow movements in sonatas, quartets, and symphonies, the large ternary form is also used in many nineteenth-century character pieces.



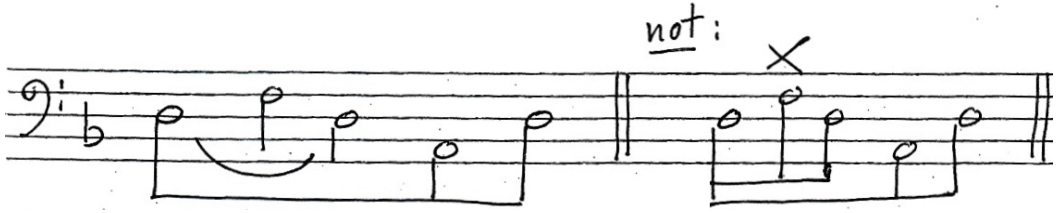
Additionally, the notation is the basis for Baroque rondeaux and later five-part or seven-part Classical rondos--see the background sketch of Purcell, *Choice Collection of Lessons...*, Rondo in Ex. 2.12. There are two couplets, and we

might therefore predict three structural I-V-I groups, but because the first couplet is in the relative major, there are actually only two such groups.

EXAMPLE 2.12 Purcell, Choice Collection of Lessons..., Rondo from Abdelazer[29]



Here, below left, is an alternate notation that one would certainly use for a detailed analysis of this piece. This acknowledges that B and the first reprise of A belong firmly to the middleground. Do not use the notation at the right: only fifths (and rarely fourths) may be linked by beams.



[29] This was originally Example 3.6. Deleted: EXAMPLE 3.7 Couperin, *Les baricades mistérieuses*.

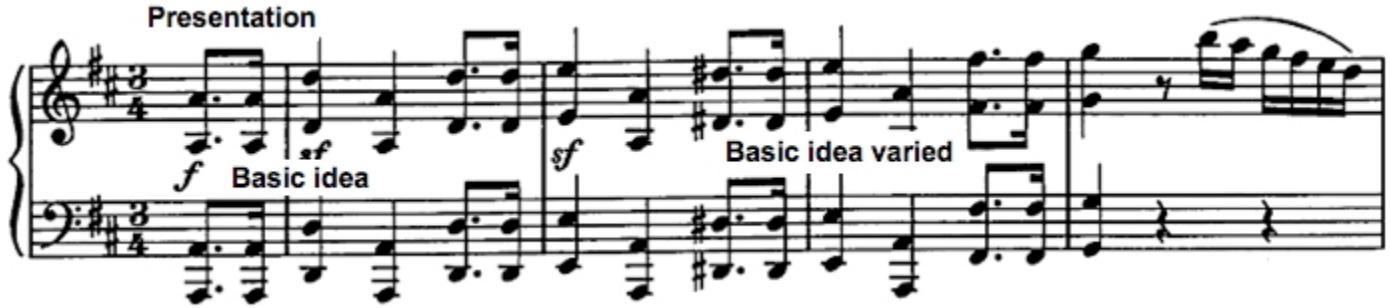
ANALYSIS NARRATIVES

The bass-line sketch can be a powerful and very useful analytic tool independently of the full apparatus of Schenkerian analysis. For many practical applications, the bass-line itself, interpreted in Schenkerian graphic notation, can be sufficient.

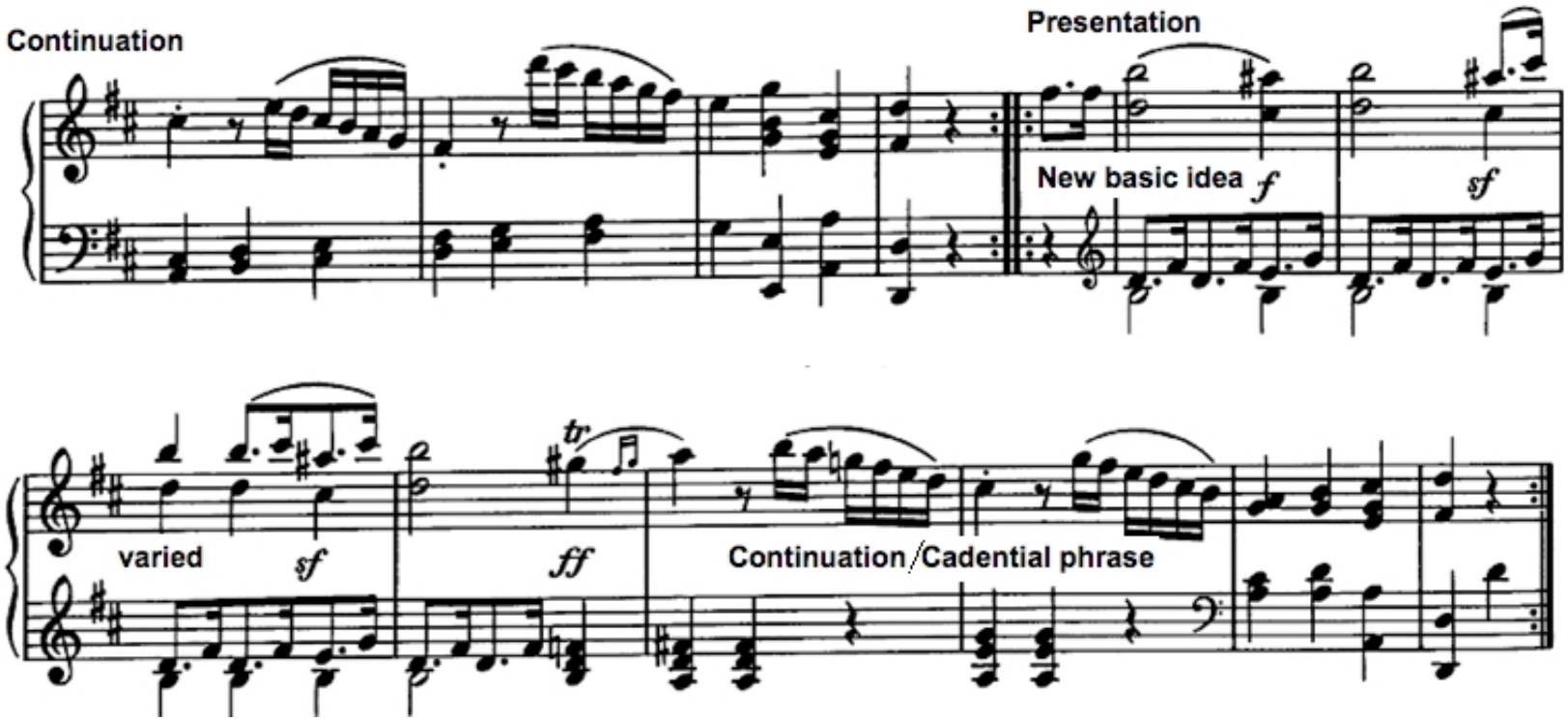
The steps needed to construct a bass analysis are the following:

1) Listen to or play the composition and decide on its formal design;
2) Align the open-note I-V-I group within that design;
3) Locate subordinate I-V-I groups associated with smaller form units, such as phrases or periods, depending on the length of the piece, and double-check the notation to be sure the hierarchies are correctly represented;
4) Interpret the remaining bass motions, which will lead to and from the several tonic and dominant tones already identified.

BEETHOVEN, MENUETS, WOO7N1 (1795)[30]



[30] These two sections on Beethoven dances from 1795 were not in the original publication. In Appendix 1 below, find more dances from WoO7 & 8 to use as analysis exercises. In Appendix 2 are late menuets by Mozart.



Listen to or play the piece; there are multiple recordings available both for orchestra and for piano.[31]

Decide on its formal design: a small binary of the type sometimes called "balanced binary," that is, bars 5-8 are repeated in varied form as bars 13-16. We have added annotations from Caplin's form theory. The first section is a sentence (presentation + continuation) and because it ends with a perfect authentic cadence (PAC) in the tonic key the dance is small binary (tonic). The second section is also a sentence, but because the opening is not in the tonic we might call it "sentence-like" instead.

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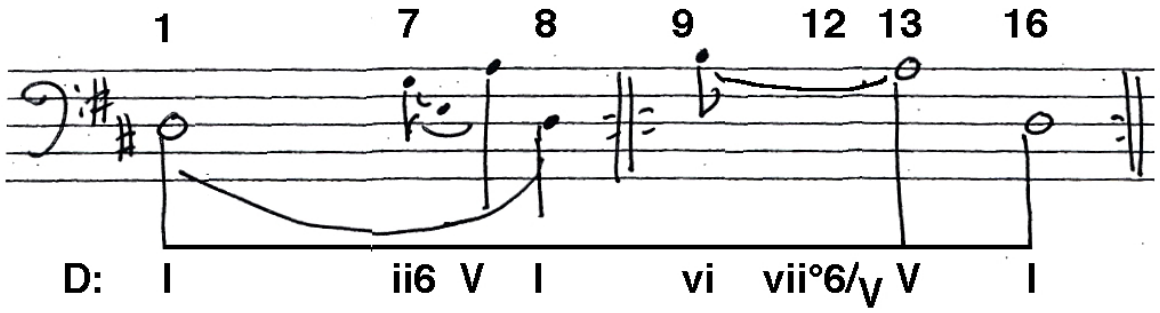
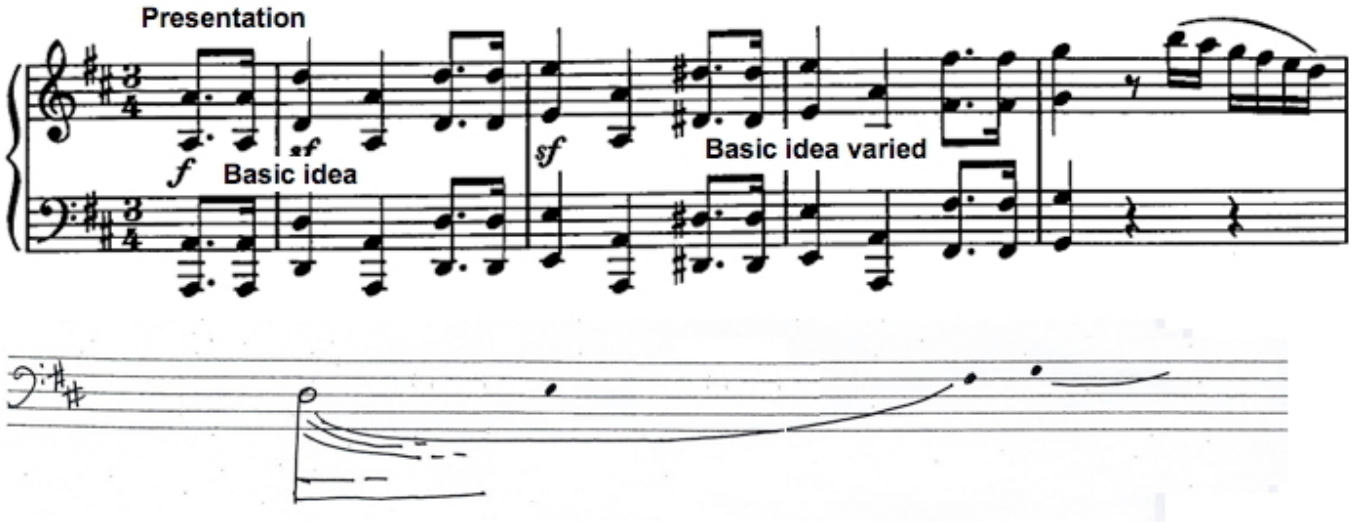
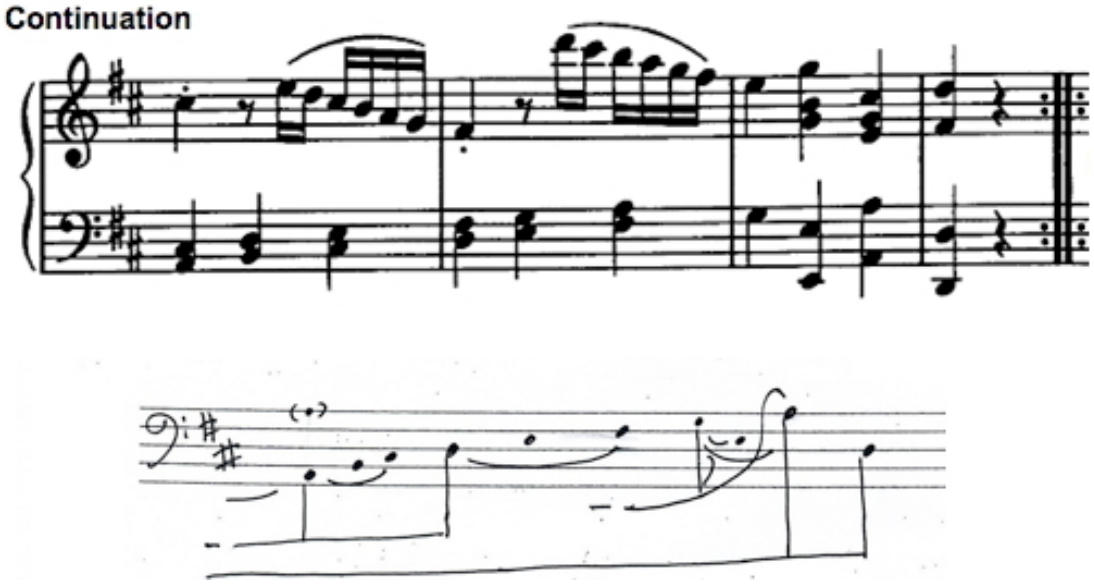
[31] Incidentally, we don't know if Beethoven did the keyboard transcriptions. The publisher Artaria announced that the piano arrangements were by him, but there is no conclusive evidence -- such arrangements were commonly produced by employees of the publisher -- but we can say that the arranger was clearly a keyboardist, because the pieces do lie well under the hands.

From this, we can see that the tonal frame is very simple, in fact even simpler than our models in Example 2.1--see below. One TSDT group (the open note D3 plus the slurred closed note group) covers section A, and another, hierarchically superior one covers the entire piece (the beamed open note group plus the flagged B3).



There's nothing else to do in section B. In section A, a line occupies the first six bars. The line goes through an octave (D-D) plus a third (D-F#).

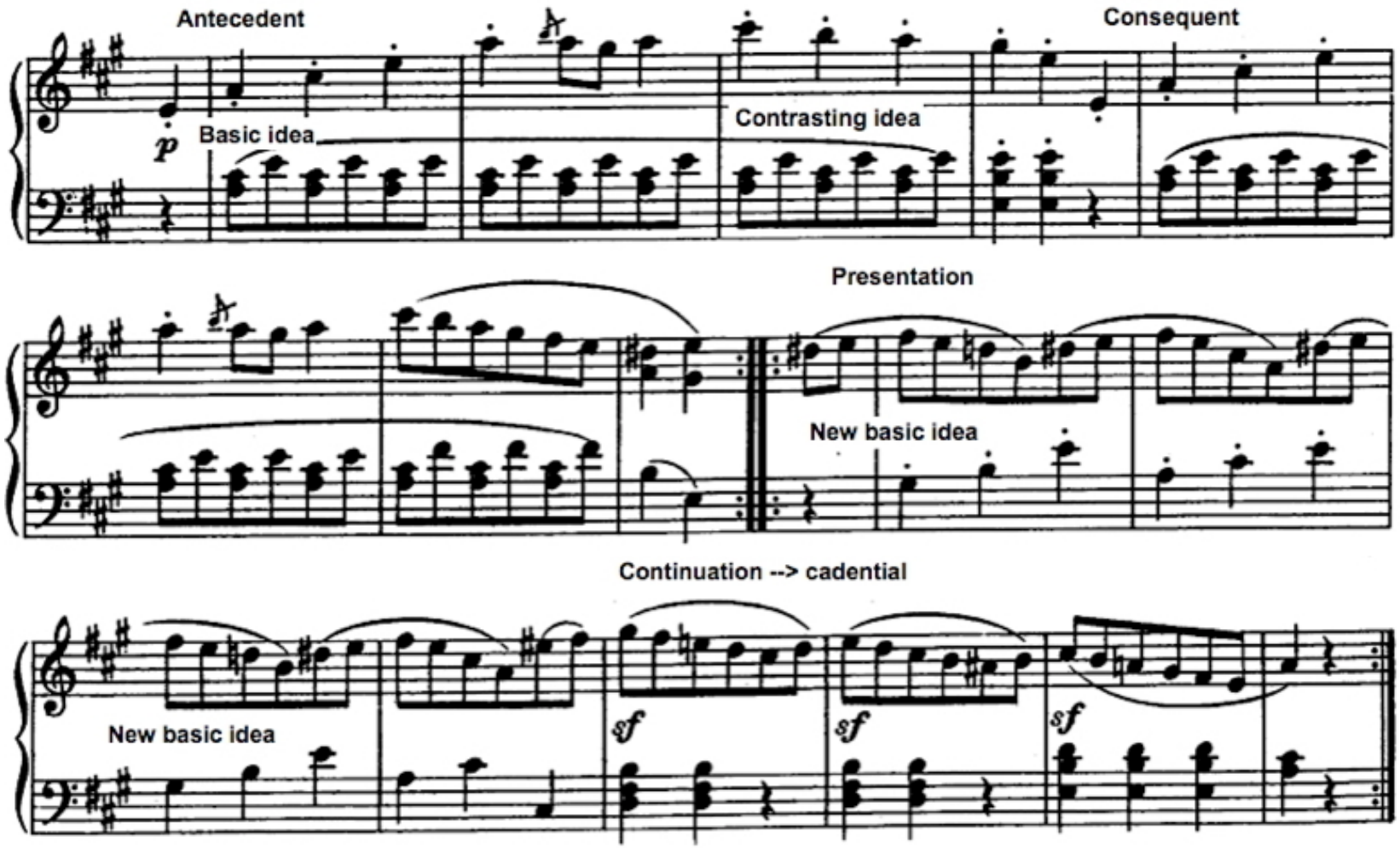




A final, detailed version of the graph, then, looks like this. It has three I-V-I groups, and we have slightly simplified the foreground in bars 1-6.

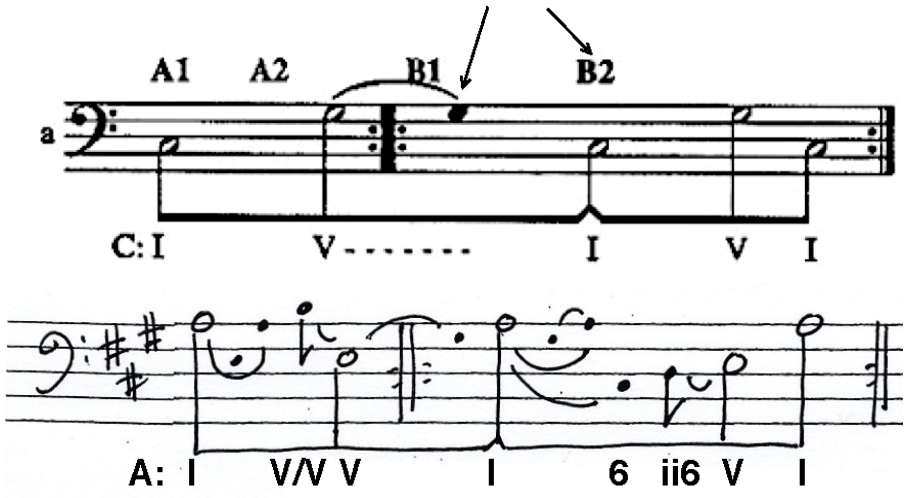
BEETHOVEN, GERMAN DANCES, WOO8N2 (1795)

In the second of the German Dances in WoO8, the design, again, is small binary. Its section A is a traditional period (antecedent + consequent) but modulates to the dominant. Section B is another unstable sentence.



The largest elements of the tonal frame are clear: the tonic at the beginning and the cadence stretched across bars 13-16. Because a dominant is associated with the first large form articulation (the end of section A), we can invoke the model in Example 2.1a, with a couple small tweaks--see below.

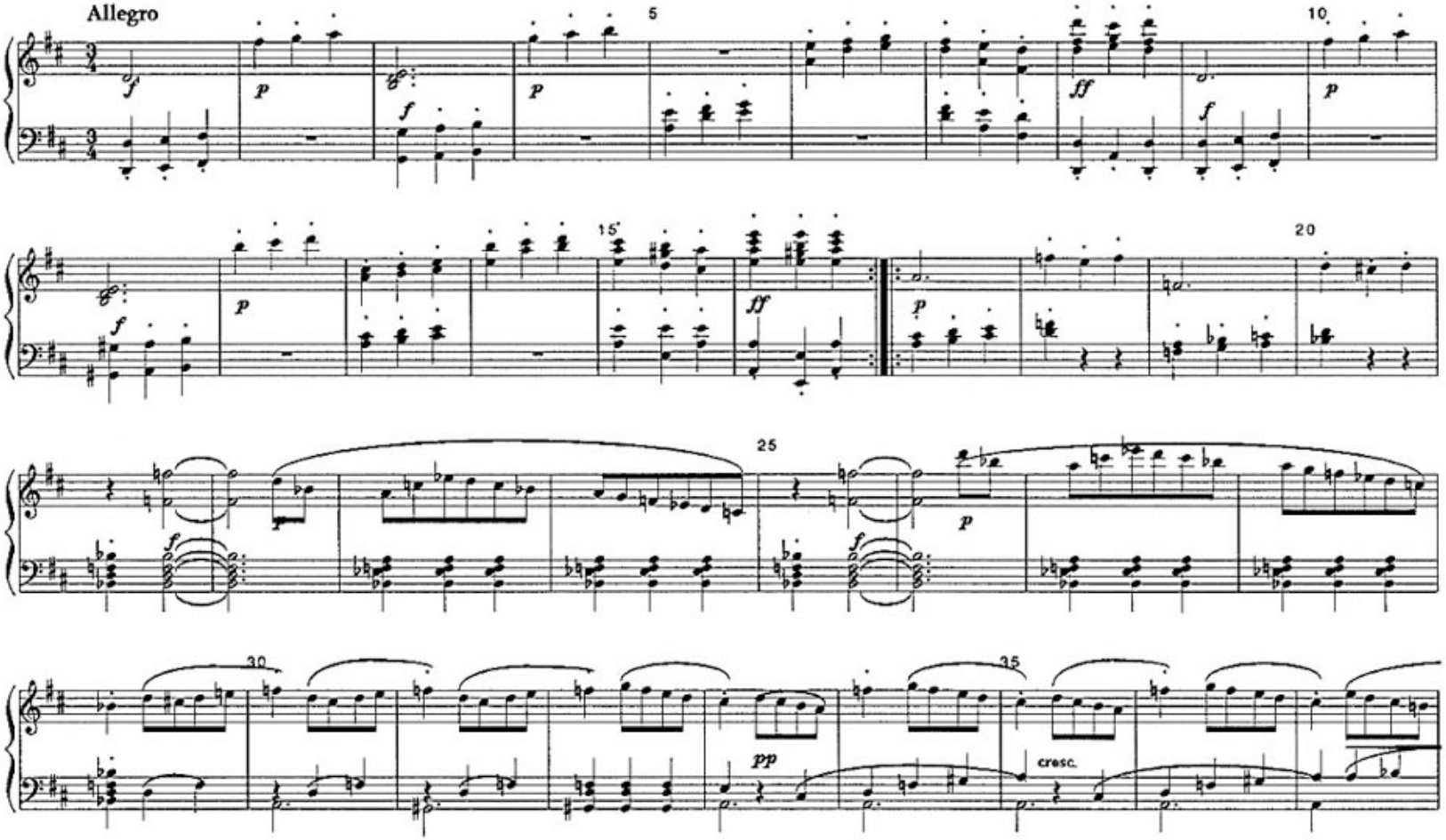
The first arrow in the model points to the beginning of section B. In WoO8n2, the bass makes an inversion--it doesn't maintain a root position dominant chord. The second arrow in the model points to form unit B2. In WoO8n2, the tonic arrives earlier, in B1 already at bar 10.

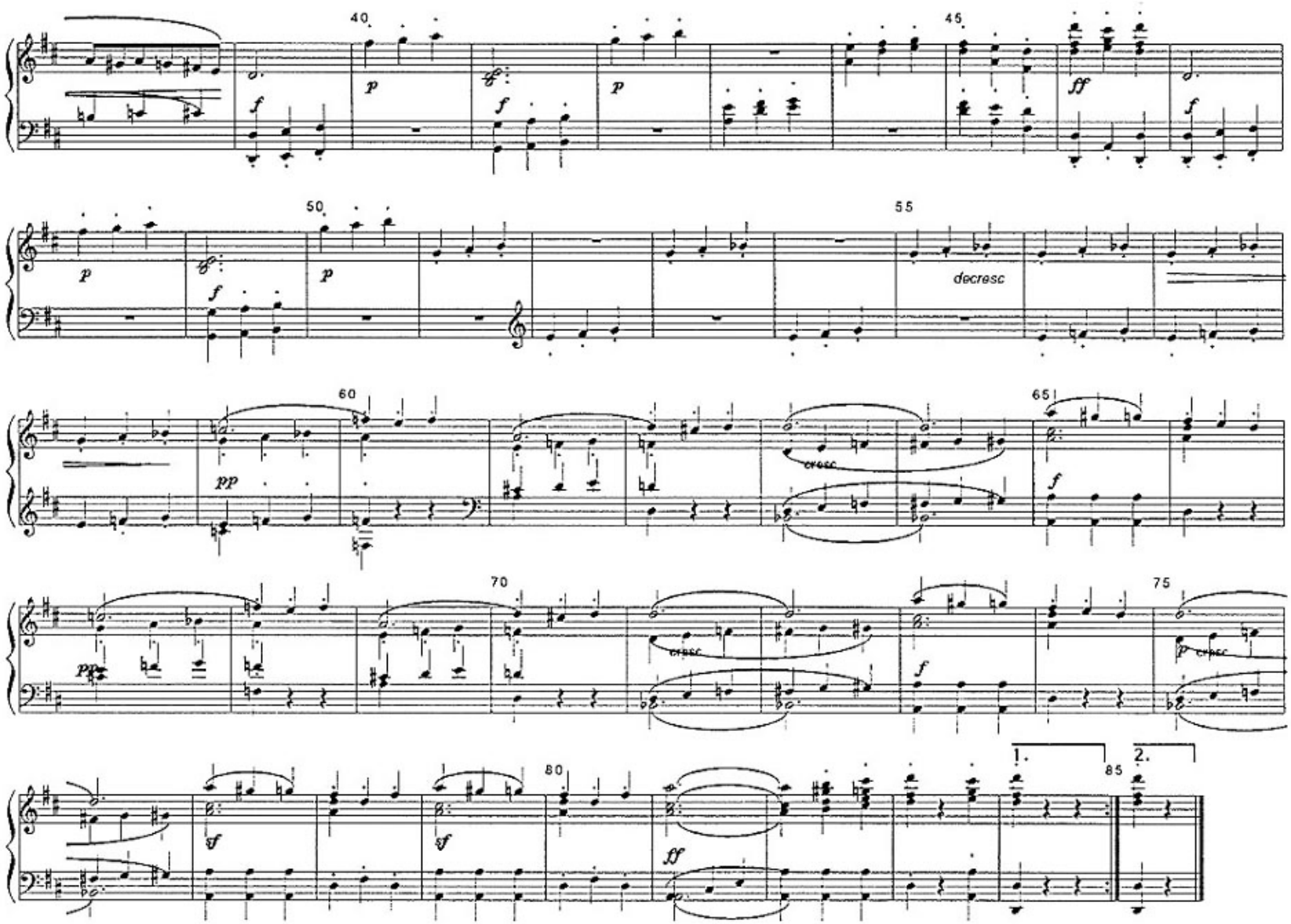


BEETHOVEN, SYMPHONY NO. 2, III, SCHERZO

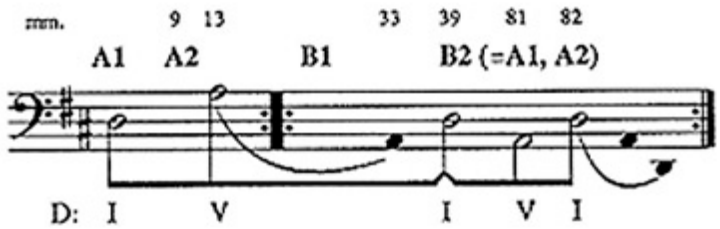
Although this piece is much longer than either of the dances, the same basic method applies, in large part because we expect a scherzo to be written in an expanded—sometimes greatly expanded—version of one of the eighteenth-century dance forms. The character and dimensions of the design are very similar to those we find in the minuet and scherzo movements of Classical sonatas, chamber works, and symphonies.

First, listen to the movement several times and, if you can, play through the keyboard reduction on the following pages. (We are not including the Trio.)

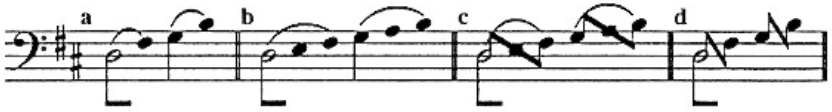

Allegro
5
10
15
20
25
30
35
cresc.


40
45
50
55
60
65
70
75
80
85
decresc
cresc
1.
2.

The rounded binary form fits best, and the two I-V-I patterns can be aligned with it as in the example at the right. The first V is placed in bar 13, at the point the dominant key region is clearly defined for the first time by its own plainly presented tonic chord. (The alternative, if V were not clearly defined or if the rhythmic or dramatic momentum drives beyond, would be to choose the final V in the section.)



The second I is very clear; it coincides with the beginning of the reprise, as we would expect. The last V-I is not so easily determined because of the frequent repetition of cadential patterns in the final 20 bars. Bars 81-83 were chosen because of the finality of the gesture: the previous cadences have ^3 above, and the final V7-I has the effect of an emphatic reiteration, the "afterbeat" effect that is a central rhythmic and motivic feature of this movement.



Bars 1-4, options for bass sketch

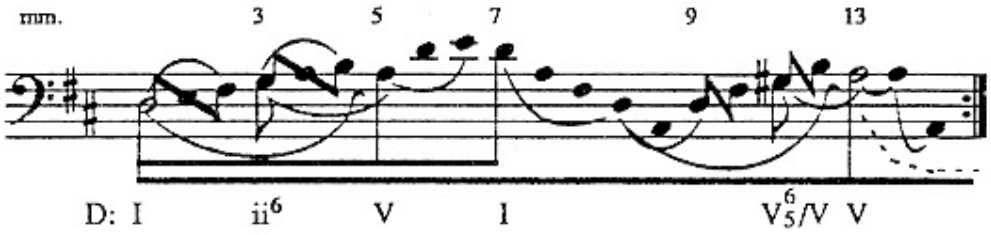
Within A, the first task is to identify any additional I-V-I patterns associated with the two eight-bar phrases. Other than this, the main problem is deciding how to treat the several thirds, such as the D-E-F# in bar 1. These may be presented as linear intervals of the third (without the passing tone), with the notes slurred; as lines of the third, with the notes slurred; or as unfolded thirds, with or without the passing tone (the options are shown above).

Bars 1-16, bass sketch

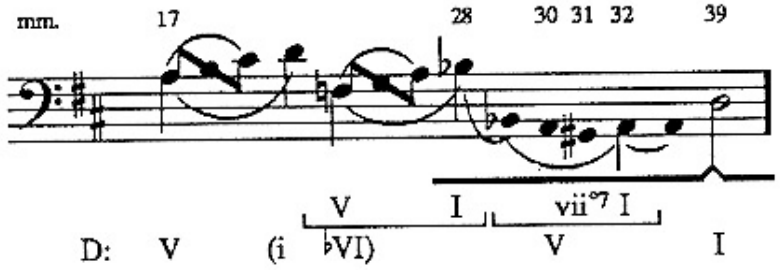
Our choice was the unfolded third, to emphasize the separation between the lower note (which belongs to the bass) and the upper (an embellishing inner voice). The passing tone was retained because the sketch is meant to be complete.

In section B, we assume that V (the open note from bar 13) is prolonged throughout. To work out the details in

such situations, first locate the expected recurrence of V at the end of the section. Then, if it is clear (as it is here: in bar 32), trace the immediate approach to the V. In this case, half steps move about A2 (Bb -A-G#). (Note that the D-minor second-inversion chord in bar 30 is a passing chord—generated by the passing tone A in the bass—not part of a cadential dominant figure.) Finally, identify the remaining patterns of motion. Here, it is simply a pair of fourths, A-D, F-natural -Bb, filled in by the main motive.

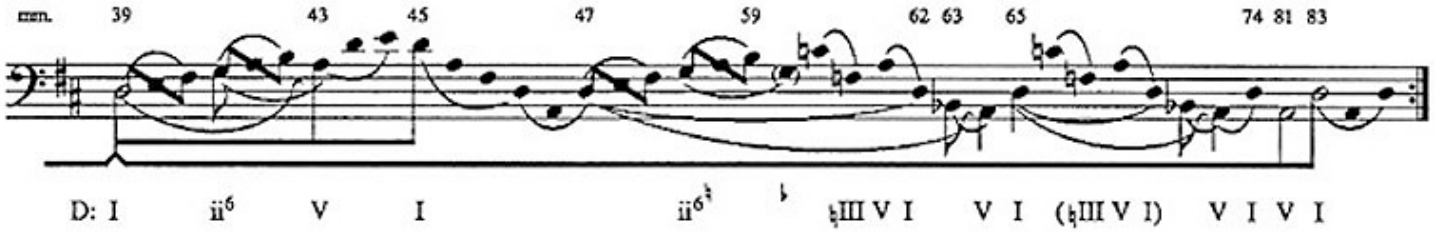


Bars 17-39, bass sketch



In the reprise, the main task is to identify and assess any deviations from section A. Here, the first ten bars are identical to the opening. Then, an extension that moves above the bass shifts the mode (before and around bar 59: E minor first inversion becomes E diminished first inversion) before paired fifths appear (C-natural -F-natural, A-D) in a pattern very similar to the opening of section B, the controlling middleground figure being a triad arpeggiation, D-F-natural -A-D. This material is simply repeated until the final cadence.

EXAMPLE 2.6 Beethoven, Symphony No. 2, III, bars 39-84, bass sketch



METAPHORS FOR THE STRUCTURAL LEVELS

There is some confusion in the literature due to description of the structural levels using adjectives that reflect conflicting metaphors and also opposing emphases (composing-out or "generation" versus reduction). You should be aware of this problem for your own reading as well as in writing commentaries on graphs.

In *Five Graphic Music Analyses*, Schenker places the background at the beginning of each set of graphs and at the top of the page. Thus, as the reader follows downward from the background to foreground, he or she traces the path of composing-out and may refer naturally to the background and first or second middlegrounds as "early," the other middlegrounds and foreground as "later." This is the manner of description and presentation we prefer.

The background and early middlegrounds may also be thought of as "higher" in a structural hierarchy, the foreground as "lower"; this, too, matches Schenker's page presentation. Unfortunately, it conflicts with another way of referring to the structural levels. The foreground vicinity is often referred to in the literature as the "surface" of the music, which suggests a metaphor based on reduction; that is, the middleground and background are "deeper" (as if in movement from the surface of the earth inward to its foundations, or from "superficial" ideas inward to the "profound" essence of a thing). In this sense, background is "lower" (that is, deeper).

To avoid problems, we suggest that you be careful to use the same page layout as in *Five Graphic Music Analyses*, hold to terms that reflect the composing-out "earlier/later" metaphor, and avoid using "surface of the music" or similar expressions.

PART II: COMPLETE ANALYSES

CHAPTERS 4 & 5: UPPER-VOICE ANALYSIS; FUNDAMENTAL STRUCTURES

1. INFORMAL UPPER-VOICE ANALYSIS[32]

A tone moves to any other in one of three ways: by step, by leap, or repetition. From these derive the three main methods of linear motion (in bass or upper parts): lines, arpeggiations, and stationary or recurrent tones. All other melodic motions are combinations or specialized variants of these three. In this chapter, we will make a brief and informal study of a method to analyze the principal linear motions of the upper voices.

To carry out an analysis using this method, follow these steps:

1. First isolate a formal unit (phrase or period).
2. Locate and circle the initial tone, final tone, and highest tone. If the first tone is an anacrusis or pick-up note, the first accented tone may be taken instead; if the highest tone is a simple embellishing tone, the next lower or prominently placed tone may be taken instead. Make decisions based on what seems most workable or musically convincing at the time—remember that this procedure is informal. For the initial and final tones, always favor elements of the tonic triad.
3. Try to chart the essential motion between the initial and highest tones, and between the highest and final tones. Give preference to a single line (for example, if the highest note is G5 and the last is D5, look for a line descending from G5 to D5). This line may have repetitions of tones or segments, may have neighbor-

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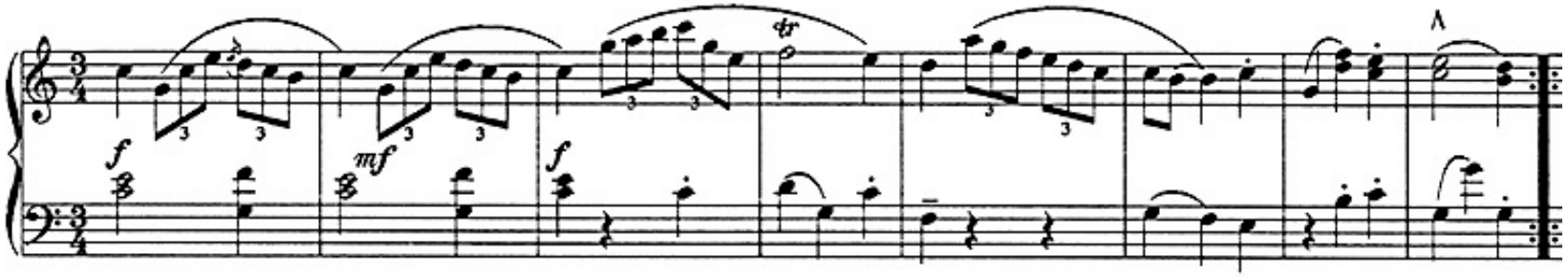
[32] Two other relatively informal modes of analysis can be very useful as preliminary steps toward creating a complete reading. Chordal reduction is discussed in File 2, appendices 3 & 4, and also in File 3, Chapter 1, pp. 44-46. In File 2, Appendix 6, we suggest making use of William Caplin's musical examples from his *Classical Form* as aids for Schenkerian graphs.

note figures attached, and may be chromatic or diatonic. The second segment (from highest tones to last) will almost always be a line; if so, connect its notes with a beam. The first segment (from first tone to highest), on the other hand, may be a line, an arpeggiated figure, or a combination of both. Arpeggiations should consist of tones of the tonic triad (or local tonic of a region), ascending. Be wary of descending arpeggiations: they will rarely be of consequence in a voice-leading graph. Register (octave) changes may be included, but only if they are obviously needed.

4. Mark the resulting figures using any convenient means, perhaps with stemmed closed notes and a slur, or with beamed closed notes.
5. An optional additional step is to try to locate linear fragments in the inner voices. These will not usually run consistently from beginning to end, nor are they likely to be coordinated, note for note, with the principal upper-voice motions.

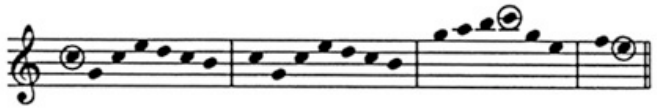
The opening of Ex. 1.12 (Haydn Menuet)—reproduced here—will illustrate. These bars constitute a two-phrase period that is the A-section of a small ternary form.



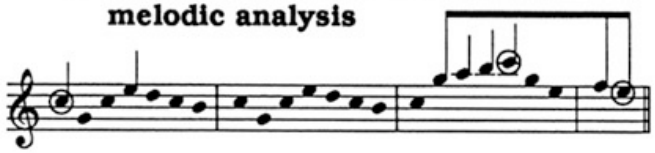
Ex. 4.1 writes out all the right-hand notes in bars 1-4. The first tone is C5; the highest tone is C6; the final tone is E5. These are circled. From C5 to C6 an ascending figure that is partly arpeggio, partly step, may be easily traced (see the first part of Ex. 4.2), but from C6 to E5 we have only the undesirable direct descending arpeggio C6-G5-E5 with a neighbor figure appended, E5-F5-E5. An alternative is more satisfying: a line descending from G5 to E5. The

status of C6 is thus somewhat uncertain—we will find that G5, not C6, is the principal melodic tone of these bars; C6 is what is called a cover tone—literally, a note "covering," or moving above, the principal melodic voice. (See Chapter 6 for more on the cover tone.)

EXAMPLE 4.1 Haydn, Menuet in C, bars 1-4



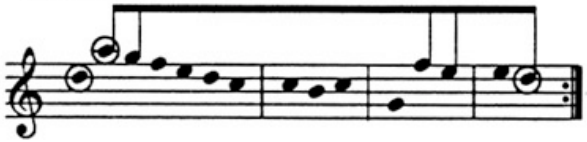
EXAMPLE 4.2 Haydn, Menuet in C, bars 1-4, melodic analysis



Our attention is focused on the principal upper voice, but it is worth observing that inner voices are often easily traced from tones of an arpeggiation figure. In bar 1, for example, we might have chosen D5 to follow C5, but the grace note suggests that D5 follows better from E5. Thus, C5 has a neighbor note (C5-B4-C5) and E5 moves in a line (E5-E5-C5). These figures are repeated in bars 2-3.

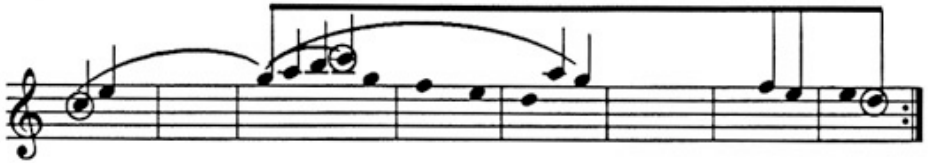
In bars 4-8 (Ex. 4.3), D5 is the first tone, A5 the highest, and D5 the last. As shown, the first two are adjacent, and a line is easily traced from A5 to D5 at the end.

EXAMPLE 4.3 Haydn, Menuet in C, bars 4-8, melodic analysis



The two phrases may be combined and the resulting period analyzed as a single unit: see Ex. 4.4. Now, C5 is the first tone, C6 the highest, and D5 the last, but we substitute G5 for C6 for reasons discussed above. The line ending the first phrase is now subordinate, as is the first part of the line from A5 in the second phrase.

EXAMPLE 4.4 Haydn, Menuet in C, bars 1-8, melodic analysis

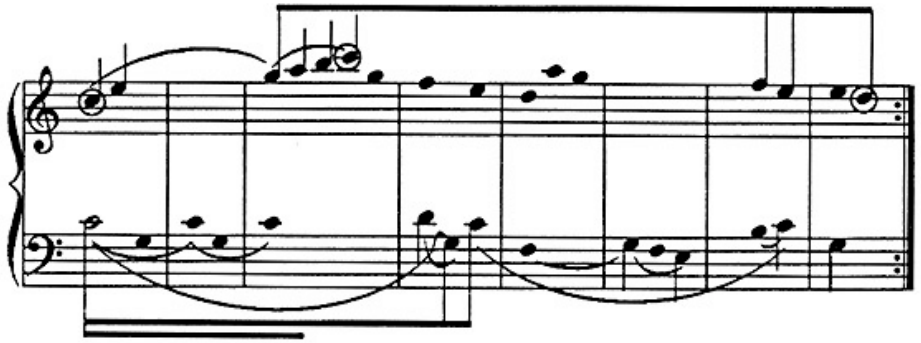


2. MATCHING UPPER-VOICE AND BASS ANALYSES

The informal method described and applied above is by no means sufficient for all compositions, nor should it be assumed that the resulting lines will always be fundamental lines or even early middleground figures. They are as likely to consist of fragments of more than one actual voice-leading part. As we have said earlier, the upper parts can be very complex, with two or more separate voice-leading strands running through a single melodic line (and often appearing and disappearing).

It is only when the principal upper-voice motions are coordinated with the bass-line sketch that we have firm criteria for separating and judging these elements according to the contexts of the different structural levels. As it happens (conveniently), our informal melodic analysis and the bass-line sketch of the Haydn Menuet may be fitted together without too much difficulty (see Ex. 4.5). We must wait for certain other techniques to be discussed in Chapters 5 and 6 before we can display the upper voices in formal Schenkerian notation.

EXAMPLE 4.5 Haydn, Menuet in C, bars 1-8, melodic analysis and bass-line sketch combined



For reference, here are complete analyses of the menuet (see Example II.7 at the right and the foreground graph below—and its annotated version on the next page), using the formal notation we will develop in subsequent chapters.

Note that the basic features of our informal analysis of bars 1-8 are preserved in the formal version: the initial ascent (the triad that leads to G5), and the line from G5 down to D5 (because the line is "broken" before it can finish on the tonic note, the overall view of the A-section is interruption: the line starts over in the recapitulation of the theme and completes its run to the tonic at the end.[33]

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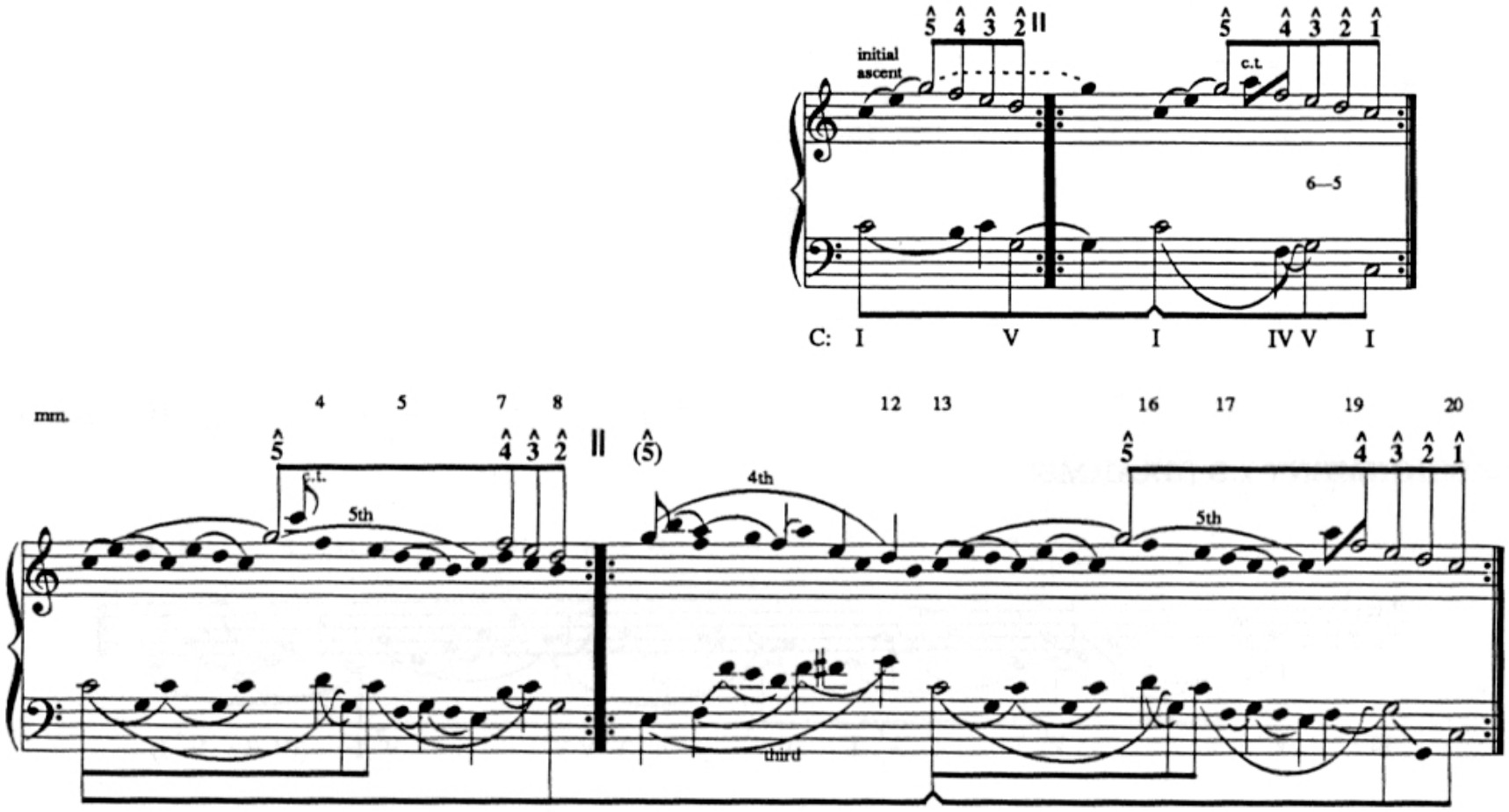
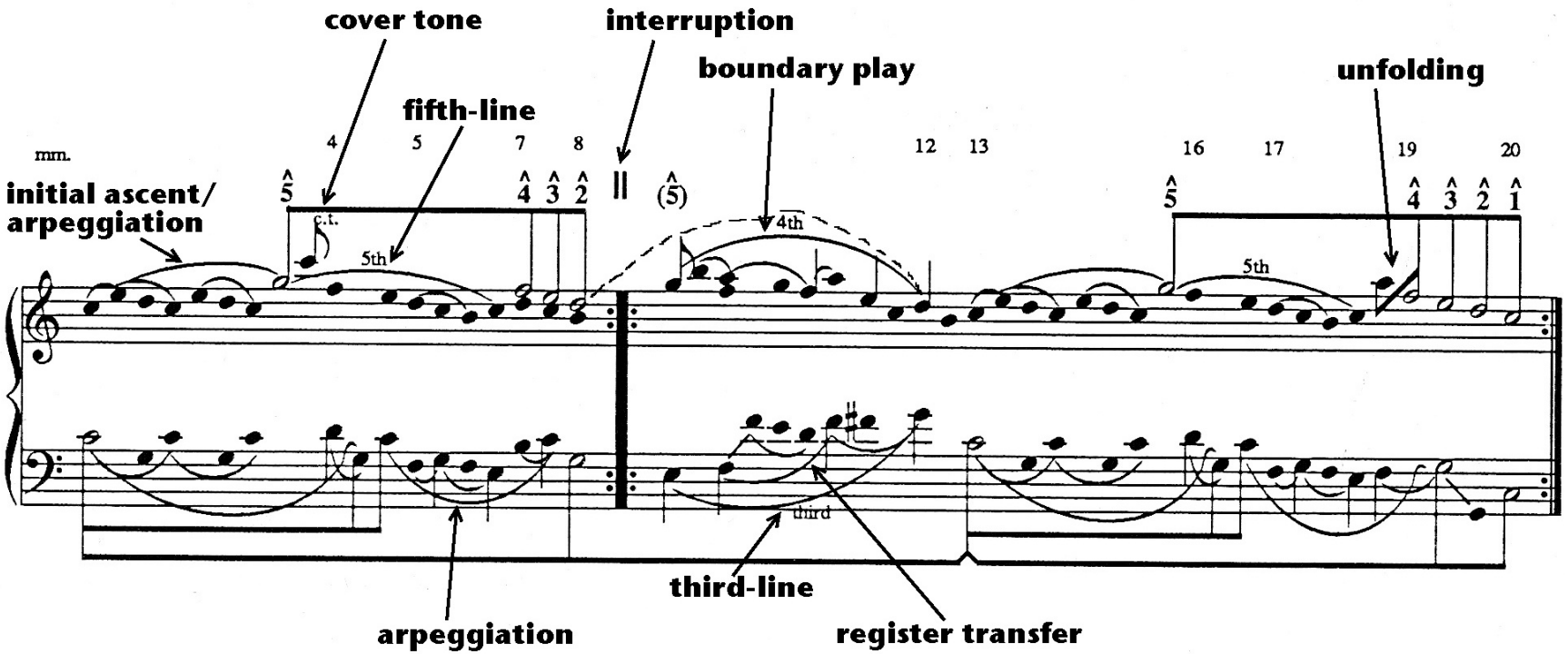
[33] As with the cover tone, initial ascent and interruption are discussed in detail in Chapter 6.

EXAMPLE II.7 Haydn, Sonata in C, Hob. XVI/1, Menuet, background/ middleground 1



Addendum: Here, for reference, is the Haydn Menuet analysis again, with annotations. See Chapter 6 for more information about each of the devices named.

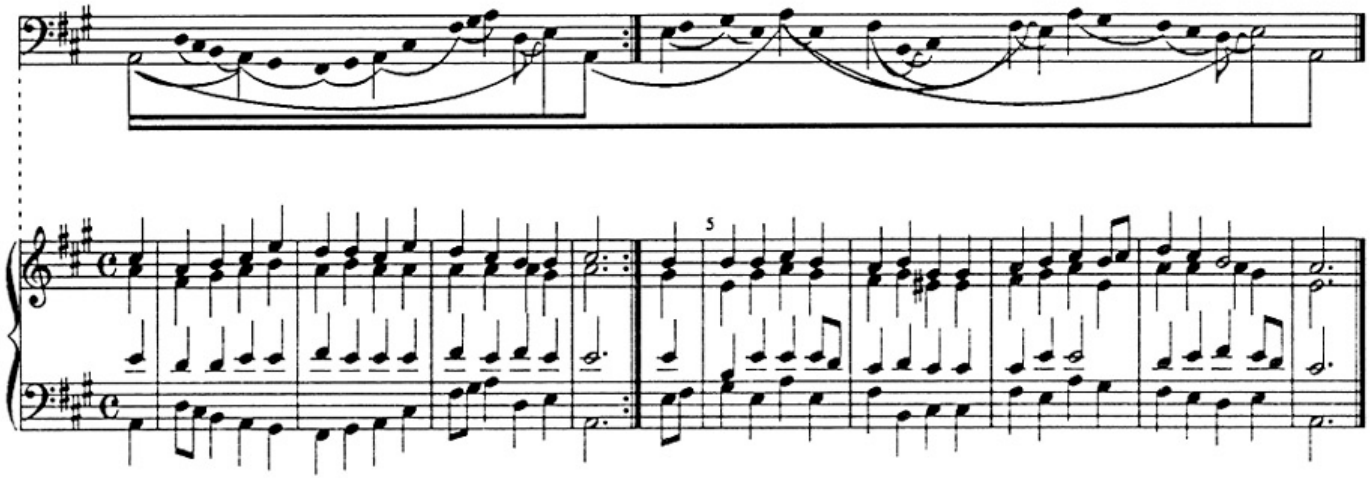

cover tone
interruption
boundary play
unfolding
fifth-line
mm.
4
5
7
8
12
13
16
17
19
20
initial ascent/
arpeggiation
c.t.
5th
4th
5th
third
third-line
arpeggiation
register transfer

3. J. S. BACH, SETTING OF THE CHORALE "DU FRIEDENSFÜRST, HERR JESU CHRIST"

Here we add a soprano to an existing bass-line sketch. We consider all upper-voice tones, but the primary concern is actually with the choice of the first tone of the fundamental line.[34] We recommend that you forge through to the background as quickly as possible, informally testing alternatives, without attempting to produce detailed graphs at any level; once you've decided on the first *Urlinie* note (^3, ^5, or ^8), and the interpretation of the background and the first middleground is secure, work your way in a leisurely and careful manner back out toward the foreground.

The chorale setting reproduced below (without text) is the closing movement of Cantata No. 67 (it is No. 42 in the *371 Chorales* collection). The text Bach uses is the first stanza of the hymn. His setting begins with ^3 harmonized by the tonic chord, but the highest note in the first phrase is E5 (^5). A quick scan of the other phrases shows E5 once again above C#5 in phrase 2, but the highest tone thereafter is D5 (bar 8).

EXAMPLE 5.1 Chorale "Du Friedensfürst, Herr Jesu Christ" in J. S. Bach's setting; score and bass sketch

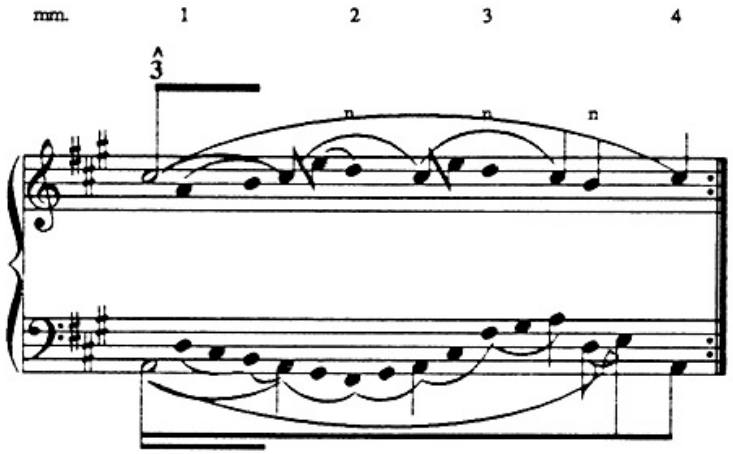


[34] Alternate terms are "first *Urlinie* note" or "first structural tone." A few Schenkerians still use the rather ugly expression "head tone," a literal translation of Schenker's "Kopfton."

The B-section has no tonic-chord tone higher than the A-section. Therefore, we rule out an initial ascent. (An initial ascent is a middleground ascending figure, line or arpeggio, that leads to the first note of the fundamental line. The tonic-chord arpeggio leading to G5 in the Haydn Menuet discussed in Chapter 4 is an example.)

Turning back to the first phrase, we find that the bass analysis shows a network of mostly stepwise patterns about the tonic degree. The tonic appears three times, always in root position, and in every case the soprano tone is C#5. The E5, on the other hand, is harmonized by V6, in this context a passing chord, not a functional sonority. All this evidence suggests that C#5 is the first tone of the fundamental line, and that the apparent line from E5 (E5-D5-C#5') represents boundary play: see Ex. 5.2.

EXAMPLE 5.2 "Du Friedensfürst," bars 1-4, chorale melody matched to bass sketch



The soprano mirrors the bass: figures move about C#5, mostly in contrary motion to the bass, a smooth but supple counterpoint, that along with the mostly diatonic setting, very limited ornamentation, and recurring root-position tonic with C#5, should not be overlooked as expressive of the sense of "Du Friedensfürst"—"You Prince of Peace."

We also need to consider the E5 in the second phrase, since C#5 in bar 1-2 might be a prolonged tone of initial ascent. Once again E5 is not harmonized by the root-position tonic chord, but by I6, and the line that leads from it down to C#5 is harmonized by a relatively weak subdominant embellishing motion, I6 -IV6 -I.[35] In the last bars of the chorale, a line D5-C#5-B4-A4 might be linked to the E5 in bar 2, but is this musically convincing? The D5 in its context sounds very much like a neighbor note to C#5 and not at all like a passing tone from E5. Our choice for the first tone of the structural line must be ^3. Analysis of the fundamental structure and remaining soprano-bass counterpoint may be worked out as in Ex. 5.4.

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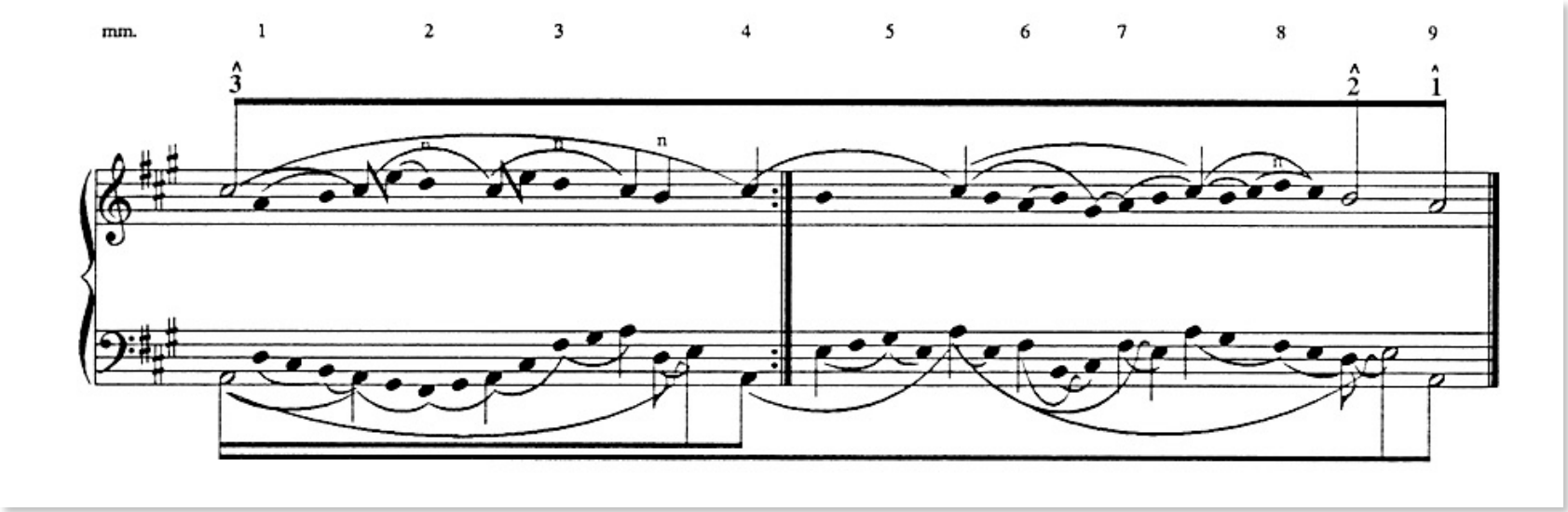
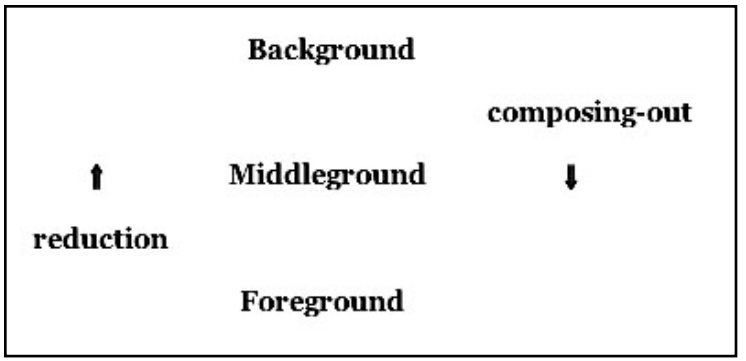
[35] This example was deleted: 5.3 Parallel tenths in an initial ascent to ^5. See page 10, note 6.

A rule of thumb to keep in mind is this: **When in doubt about ^3 or ^5, choose ^3; and, analogously, when in doubt about ^5 or ^8, choose ^5**.[36]

EXAMPLE 5.4 "Du Friedensfürst," foreground graph



[36] **An alternate way of putting this is that you can *always* read from ^3**. We like to stress this to students who are anxious about whether they can do an analysis at all unless and until they find the "right" fundamental tone. If a composition poses too many ambiguities, just read from ^3 (because you know you can), and *then* consider whether a background from ^5 or ^8 might produce a better hearing of the piece. The line from ^8 is relatively rare, in any case. See File 2, Appendix 2, for a table of its forms.



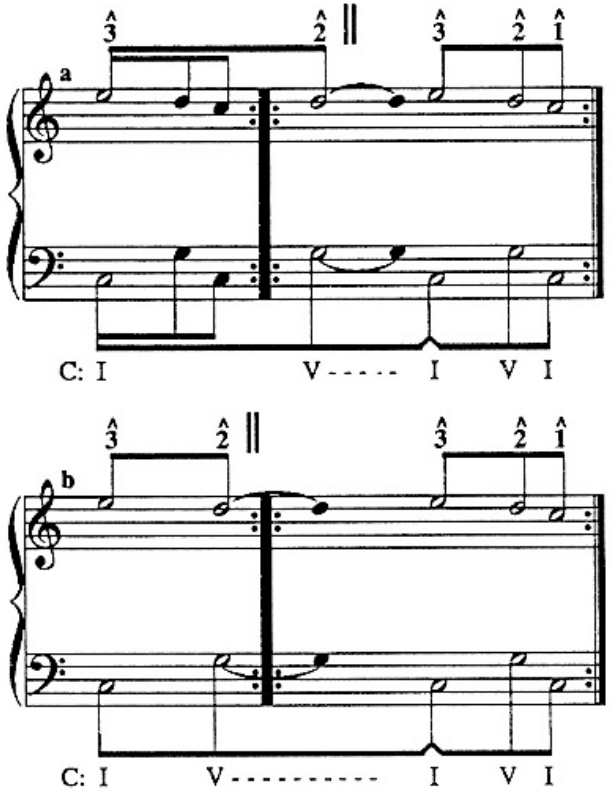
Our analysis of Bach's setting of "Du Friedensfürst, Herr Jesu Christ" consisted of a leap to the background, then working from there to the foreground represented in Example. 5.4 above. This method is generative, following the line Schenker calls composing-out, working from the fundamental structure outward toward the score--see the figure at the right. The term "composing-out" refers to Schenker's belief that great composers worked from an intuition of the background. Reduction, or reductive analysis, refers to the opposite: an analytic process working inward from the score to the fundamental structure--at the left of the figure. We might understand reduction as the path of "discovering" the fundamental structure, of initial study for performance or understanding; composing-out, then, is the path of composition and of a more advanced or complete understanding.

The actual work of doing a Schenkerian analysis necessarily involves *both* reduction and a reading of composing-out, but the emphasis ultimately must be placed mainly on the latter, since a final set of graphs is first and foremost an elucidation of the composing-out process.

4. FUNDAMENTAL STRUCTURES AND FORMAL DESIGN (= ORIGINAL CHAPTER 8)

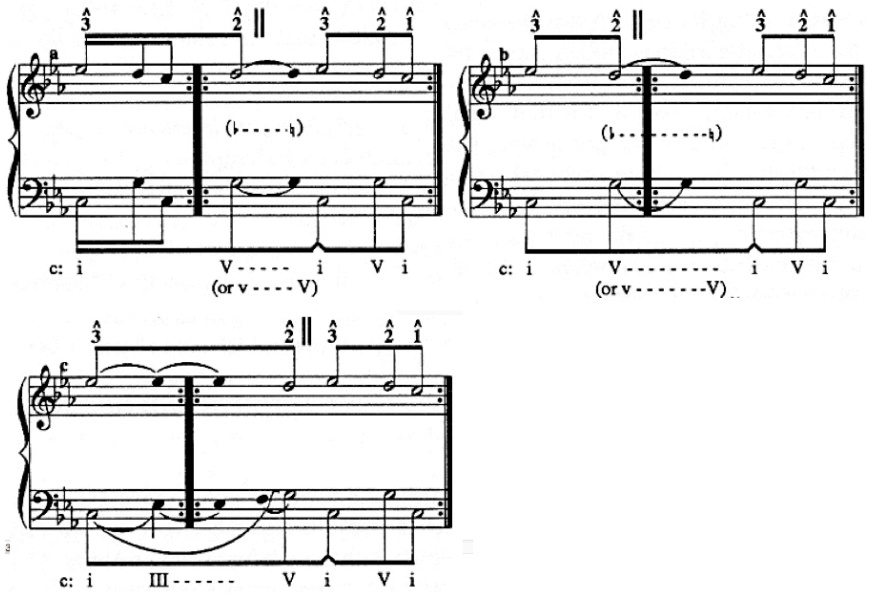
EXAMPLE 5.1/8.1 Binary forms, fundamental line from ^3

The simplest binary forms, tonic and dominant types, with or without reprise, and with a fundamental line from ^3, appear in Ex. 8.1. The corresponding minor-key models are shown in Ex. 8.2. For those relatively few pieces in the major key in which section A closes on iii (or III), the notation may be borrowed from the minor key models, as in Ex. 8.3.[37]

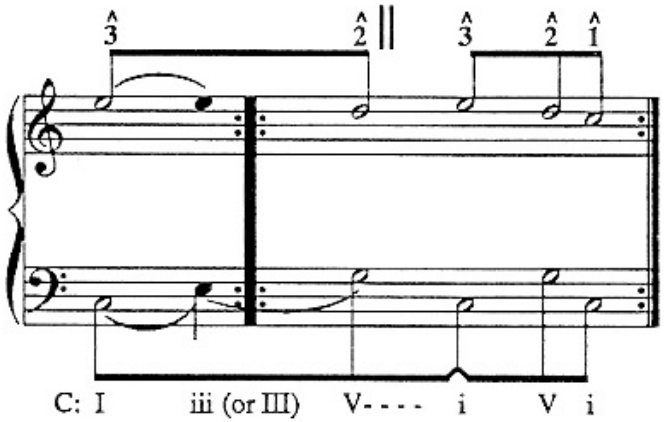


[37] Examples in the literature: In *Free Composition*: Figs. 35,1 (Mozart); 35,2 Mozart); 40,1 (Chopin); 82,2 (Beethoven).

EXAMPLE 5.2/ 8.2 Minor key; fundamental line from ^3



EXAMPLE 5.3/ 8.3 Binary forms, mediant, line from ^3



Models for binary forms with the fundamental line from ^5 are shown in Exs. 8.4 (major key) and 8.5 (minor). The first model includes two features found again and again, not only in this type of composition but also in many others where the interruption[38] occurs: 1) a middleground fifth line descending from ^2 and closing the first section; 2) a cover-tone-like anticipation of the ^5 before the latter's return over I. The third model is a variant of the second; it shows two upper parts—a "structural soprano" on ^5 and a "structural alto" on ^3. The latter is actually a part of the middleground (that is, not a part of the essential two-part counterpoint of the fundamental structure) but its inclusion is often useful in pieces where there is clear emphasis on ^2 but no descent from ^5.[39]

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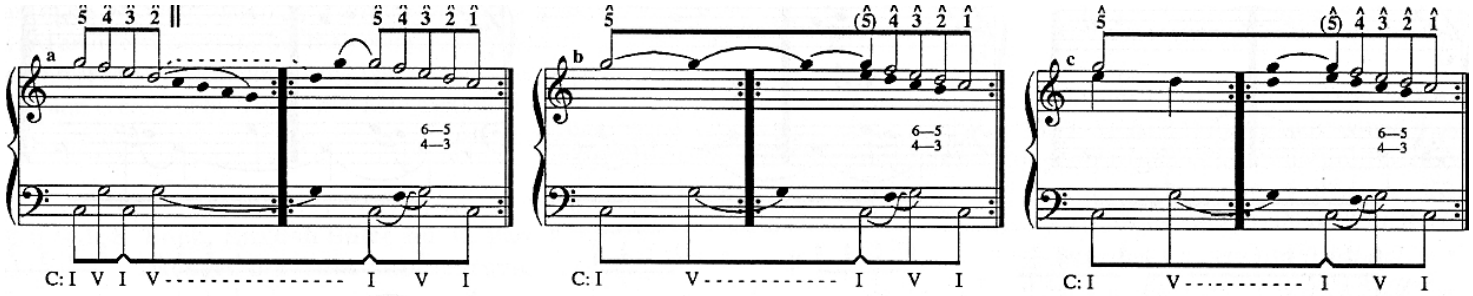
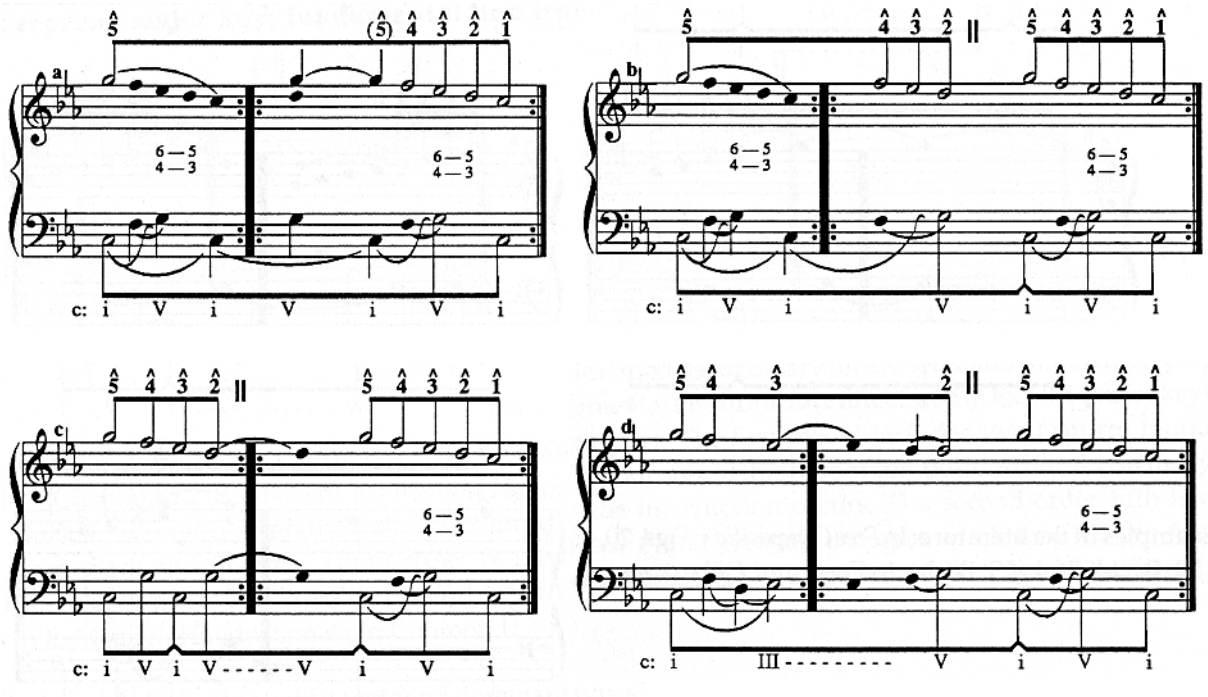
[38] For more on the interruption, see Chapter 6 below.

[39] Examples in the literature: In *Free Composition:* Figs. 40,9 (Paganini); 103,6 (Handel); 152,4 (J.S. Bach). In Forte and Gilbert: Exs. 143 & 179 (Handel; undivided form; follows the third model in Ex. 8.4); 155 (Mozart); 180 (Bach). In *Structural Hearing*: Fig. 475 (Mozart; rounded binary design; minor key).

EXAMPLE 5.4/ 8.4 Binary forms, tonic and dominant, with or without reprise; major key; fundamental line from ^5

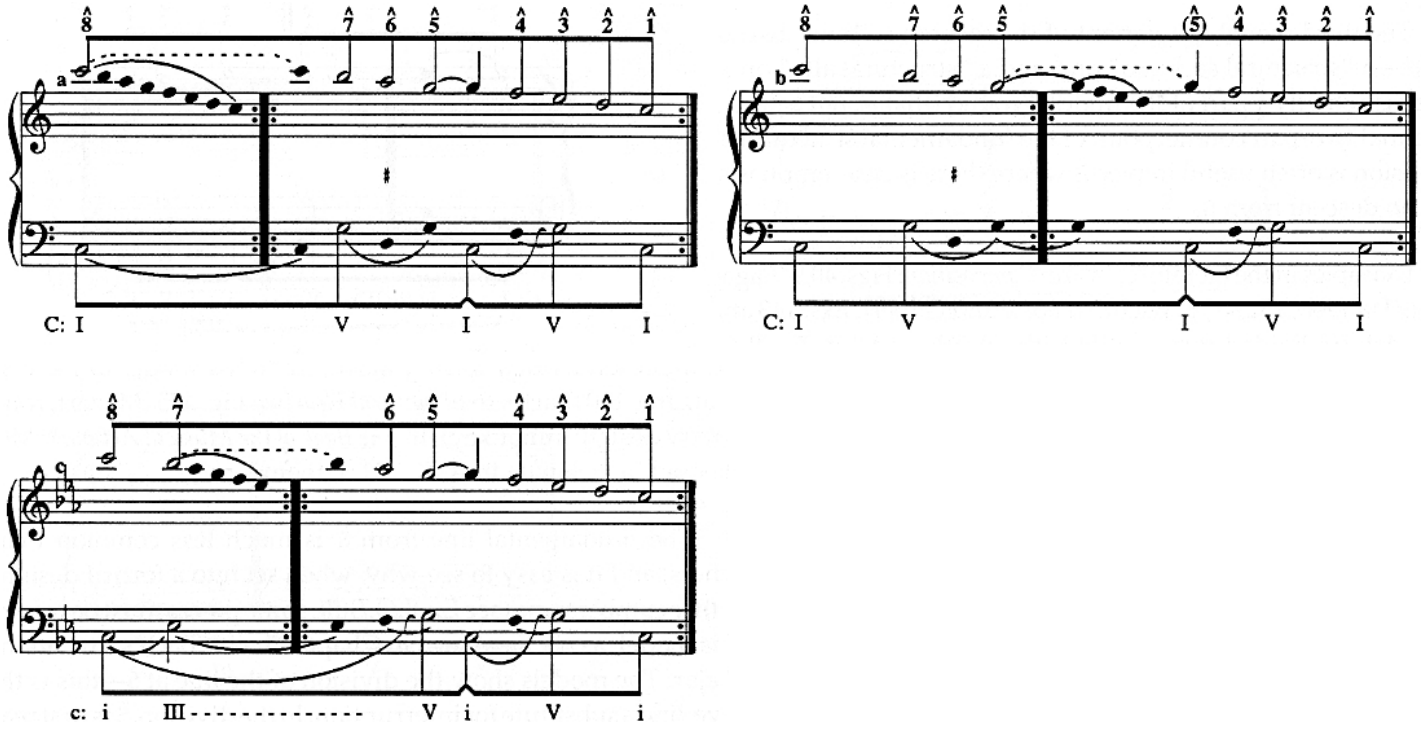


EXAMPLE 5.5/ 8.5 Binary forms, tonic and dominant, with or without reprise; minor key; fundamental line from ^5



The fundamental line from ^8 is much less common than the others, and it is easy to see why: when set into a formal design, it is rather cumbersome (see Ex. 8.6). The models show the division of the line at ^5—this is the octave-line's substitute for interruption. In the division, ^5 is first reached over V and is prolonged as the bass moves to I, after which the line continues its descent. We might add that compositions with a fundamental line from ^8 are found mostly in the Baroque repertoire.[40]

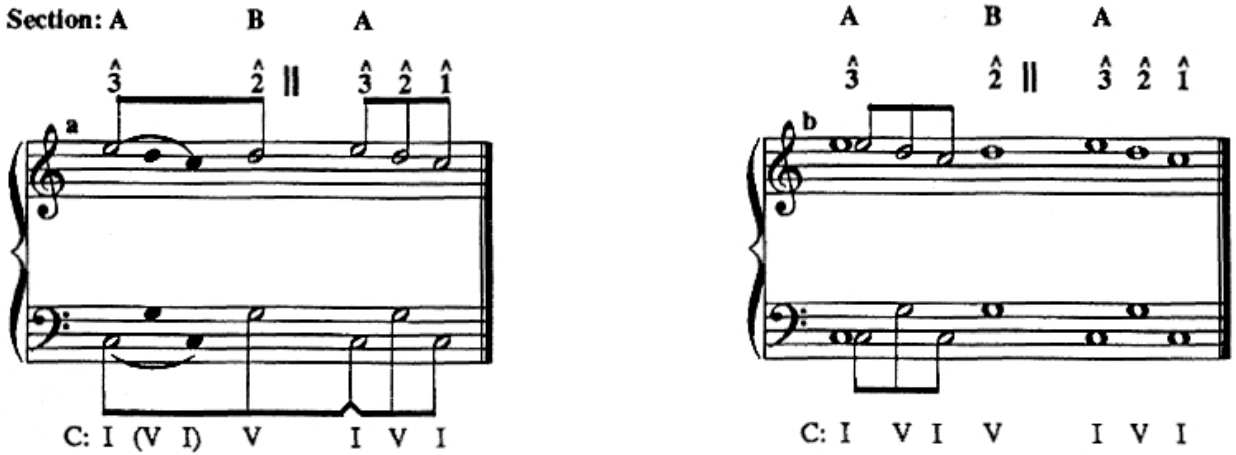
EXAMPLE 5.6/8.6 Binary forms, tonic and dominant, with or without reprise; major key; fundamental line from ^8



[40] Examples in the literature: In *Free Composition*: Figs. 20,4 (Mozart); 47,3 (J.S. Bach); 76,4 (J.S. Bach). In Forte and Gilbert, see pp.180-184. Also see File 2, Appendix 2.

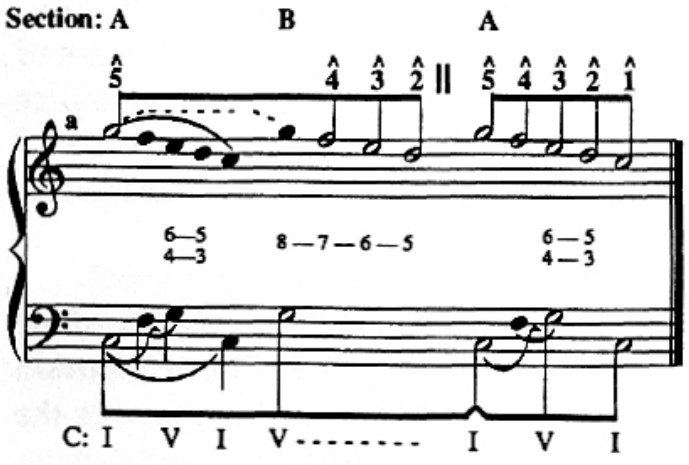
For the ternary designs, the simplest possibility is a fundamental line from ^3 with an A B A design where A is tonally closed and B is on the dominant—see Ex. 8.7. Here, the descent to the tonic at the end of the first A section is relegated to the middleground and section B is assigned the ^2, and interruption. Common models for the ternary design in the minor key (fundamental line from ^3) and the major key (fundamental line from ^5) are shown in Ex. 8.8. Interruption is the most common feature, but a first-middleground neighbor note or mixture can be the primary generator of the B-section.[41]

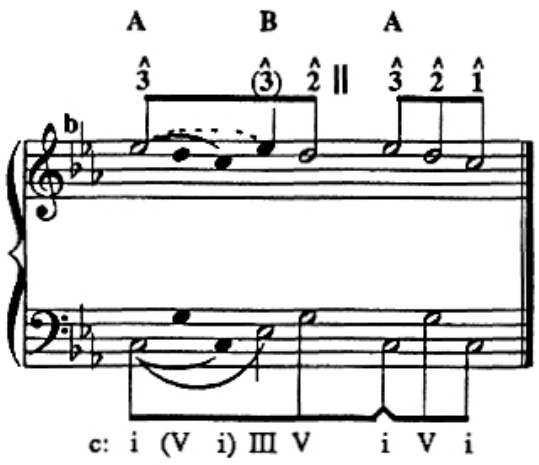
EXAMPLE 5.7/8.7 Ternary forms; major key; fundamental line from ^3



[41] For more on middleground neighbor notes and mixture (chromatic neighbors), see Chapter 6 below. Examples in the literature: In *Free Composition*, see pp. 132-133 (§ 310) and the figures mentioned there, especially Figs. 22,b (Schumann); 30,a (Chopin); 30,b (Schubert); 46,1 (Brahms); 76,3 (Chopin); 153,1 (Chopin); 153,2 (Chopin); 153,3 (Chopin). In Forte and Gilbert: Exs. 183 (Brahms); 184 (Schumann); and Chapter 23. In *Structural Hearing*: Figs. 499 (Chopin; interruption at the end of B); 500 (Chopin; B as prolongation of an interruption); 502 (Schubert; unusual treatment of neighbor-note to generate B).

EXAMPLE 5.8/8.8 Ternary forms; major key (^5); minor key (^3)





5. FIVE STAGES IN CREATING A COMPLETE SET OF ANALYSIS GRAPHS

FIRST: construct a bass-line sketch.

SECOND: determine the first note of the fundamental line by going through the process described in the discussion of "Du Friedensfürst" above (if necessary, precede that with an informal melodic analysis of the kind discussed in Chapter 4), by matching some of the patterns of the soprano with the bass-line sketch, and by examining closely the opening phrase(s) and the final structural cadence.

THIRD: proceed with the "formal" construction of the graphs, starting with the background. Decide how many levels will be included. If you need more than three, the extra levels should usually be middlegrounds. Use more than one foreground only if the graphs are particularly intended to concentrate on details.[42]

In a complete set of graphs, the *Ursatz* may be placed either at the top or at the bottom. We prefer the former, as in *Five Graphic Music Analyses*, where the *Ursatz* appears at the top and later levels below it (or on successive pages when necessary). Since readers of Western languages are accustomed to reading from the top of the page down, this arrangement gives a good parallel to the process of composing-out.

Make sure that all the content of any level is present in all succeeding (that is, later or more foreground) levels, and be sure to align all the graphs vertically.

FOURTH: when the foreground graph is completed, read the set of graphs in reverse—that is, from foreground to background, or in "reductive" order—to make sure that there are no gaps in the logical sequence from one level to the next or failures to represent your interpretation accurately.

FIFTH: if appropriate, add text commentary to suit your purpose

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[42] For more information on the kinds of figures to expect in middleground and foreground, see Chapter 6 below.

CHAPTER 6. MIDDLEGROUND AND FOREGROUND TECHNIQUES

INTRODUCTION: PRIORITIES FOR ANALYSIS OF THE UPPER PARTS

It can be a great help in the analysis process to have constantly in mind the priorities for motions of the upper voices. In the bass, decisions are made relatively easy because patterns generally coincide with functional hierarchies, but in the upper parts, the task is not so simple. Invariably the most difficult problem in carrying out an analysis is reconciling the clearly observable features of the score with the limited number of abstract models Schenker provides. In practical terms, this is the problem of interpreting the middleground. One is inclined to equate "prominence" with "significance," yet, these two very often do coincide, they don't *necessarily* do so.

More specific guidelines:

1. The patterns of the upper parts (or at least the principal upper part) must coincide with the bass patterns at the same level of structure. This means that a first-middleground bass figure must have a correspond-

ing first-middleground upper-voice figure, and so on, through the several levels of structure (whether those levels are readily named or not).

2. The central problem in working out the background and middleground 1 is to locate the first tone of the fundamental line.

   a. Use the rule of thumb given earlier: "When in doubt about ^3 or ^5, choose ^3 (and, analogously, when in doubt about ^5 or ^8, choose ^5)." And remember that you can *always* read from ^3.

   b. At the beginning of the piece, examine any rising figures. Assume that these represent an initial ascent; then pick the last or second last tonic-chord tone as the probable first note of the fundamental line. Next, apply these additional rules of thumb:

      1. Ask from what note the voice leading follows in the early bars of the piece. Unless it is an element of an extended initial ascent figure, this will most likely be the first tone of the fundamental line.

      2. Look at the final (structural) cadence, specifically at the shape of the descent in the principal upper part. This can be an important secondary clue about the best background line.

      3. Finally, in difficult cases, it may be necessary to construct preliminary graphs with different fundamental lines—this will always provide a sufficient basis for a decision.

3. Analyze the formal design and choose an appropriate model. The interruption will be used in binary forms and related pieces; interruption or the large-scale neighbor note or mixture (chromatic neighbor note) will be used in three-part forms, etc. Although there are many deviations from these models, they do provide some idea of typical patterns to look for in the different compositional genres.

4. Assume that interrupted lines will probably play an important role in the first or second middleground of most compositions of any size.

5. In the middleground and foreground, the upper parts in individual passages may often be analyzed using the list below (in order of preference):

   a. A descending line that matches the main harmonic activity.
   b. (as good) An interrupted line.
   c. A neighbor-note figure linked to the structural tone at the beginning of the passage (or possibly prolonged from a previous passage).
   d. A held structural tone with moving inner parts (line, neighbor note, etc.) and/or boundary play.
   e. Arpeggiation from the first structural tone (this is the least likely, except in the later foreground—often turns out to be embellishment or merely a by-product of compound melody).

6. Register transfer is the most common cause of apparently confused upper-voice voice leading. Although the transfers may need to be retained in the foreground graph, an informal attempt should be made to correct some or all of them to locate the simpler, underlying patterns.

   Techniques closely related to—or depending on—register transfer are, of course, included in this, such as reaching-over, reaching-under, coupling, and boundary play. The last of these, usually prolongation of a cover tone, can be particularly troublesome since it raises doubts about the first note of the fundamental line. In some problematic cases, the first structural tone and a cover tone prolonged by boundary play can have almost equal significance, becoming effectively "dual" fundamental notes. Other than register transfer, the most common source of difficulty is a failure to recognize compound melody and trace the separate voice-leading strands.

MIDDLEGROUND AND FOREGROUND

The middleground is the level, or series of levels, in which most of the refinement of voice-leading development occurs. Essential motives and characteristic chord progressions arise here and traditional form designs emerge. The foreground is not inherently different from the middleground(s): it is simply the last of this series of levels, the one with the most diminutions and, of course, the one closest to the score itself.

Schenker itemizes and discusses the specific features of the middleground in Part II, Chapter 2, of *Free Composition*. He concentrates on the first middleground; that is, the level immediately after the background containing the fundamental structure. The first middleground is the only level that contains what he calls "first-order" diminutions, or direct elaborations of individual tones of the fundamental structure--see the table at right for an inventory of these "first-order" diminutions.[43]

Chapter 2 of Part III (Foreground) is devoted to "the later structural levels," which in most instances includes both foreground and the later middleground. Be aware of this seeming discrepancy when you use *Free Composition* as a reference—which you should do often. Both chapters mentioned above have clearly marked subdivisions, each of which is given over to one of the topics explained and discussed below and includes multiple references to analyses in the Supplement volume. The translations of terms and abbreviations we employ here follow *Free Composition* as much as possible.

List of possible events in Middleground 1:

First-order prolongations are those that run directly from a note of the Urlinie. "Directly" means that there is no other intervening figure (crudely: no slur or beam between it and the background beam). The number of possible figures is very small and therefore very useful in "securing" an analysis, since middleground 1 is where the largest tonal features are matched to the largest formal features.

1. Initial Ascent (*Anstieg*)
2. Neighbor Notes to Tones of the Fundamental Line
3. Mixture (*Mischung*)
4. Lines (*Zug*; plural *Züge*)
5. Interruption (*Unterbrechung*)
6. Register Transfer, Coupling (*Koppelung*), and Obligatory Register (*obligate Lage*)

INITIAL ASCENT (ANSTIEG) AND RISING LINES IN THE LATER LEVELS

The initial ascent (abbreviated "in.asc.") is a prefix to the first tone of the fundamental line. Strictly speaking it is a line based on an interval of the tonic triad, but for practical purposes we may regard it as a line, arpeggio, or combination of both. Instances of each might be ^1-^2-^3, ^5-^1-^3, or ^5-^1-^2-^3, respectively, where^3 is the first note of the fundamental line. It is preferred, but not required, that each tone be separately harmonized. The initial ascent almost always results in displacement of the first soprano and bass note-pair in the fundamental structure (the background bass tonic supports the initial ascent, but the first tone of the fundamental line, of course, does not appear until the pattern is completed).

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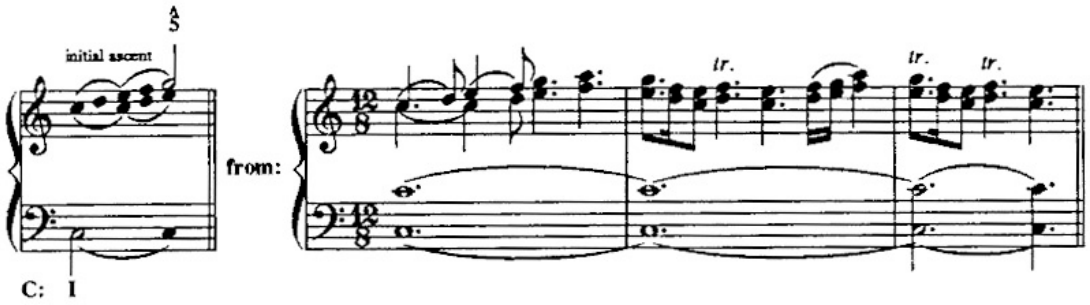
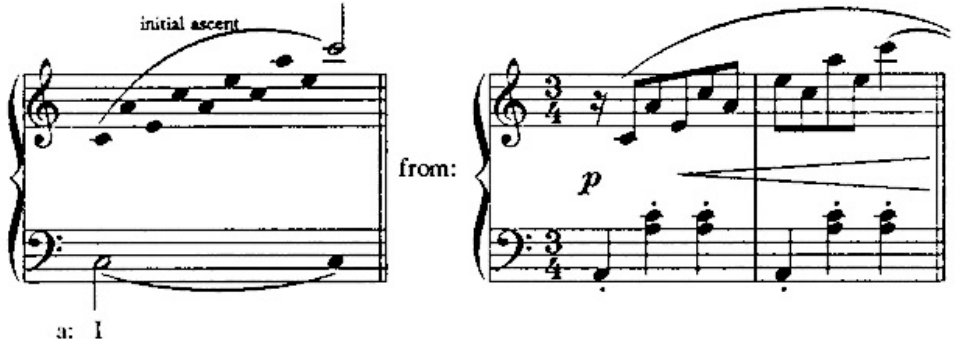
[43] In File 2, Appendix 5 has a concise table with examples.

EXAMPLE 6.1 Handel, Messiah, Pastorale Symphony, opening



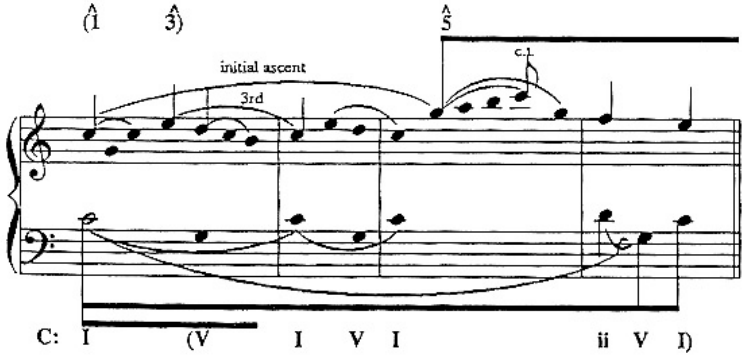
The simplest initial ascent is an unharmonized rising line, as in Ex. 6.1: the opening of the Pastoral Symphony from Handel's *Messiah*. The Beethoven, *Bagatelle*, op. 119, no. 9, on the other hand, uses only triad tones (Ex. 6.2)—note that the first tone of the fundamental line is displaced by two bars, or half of the first phrase. [text deleted here] Diminution of the tones of the initial ascent with notes or figures of later levels is a very common technique.

EXAMPLE 6.2 Beethoven, Bagatelle, op. 119, no. 9

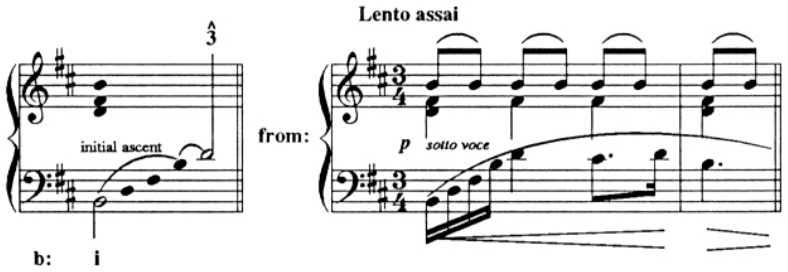


In Exs. 6.3 & 4, arpeggiation and line are combined, though in both cases, the arpeggiation is clearly the overriding feature. In Ex. 6.5 (Mozart, Violin Sonata, K. 6, Menuet), the first structural tone is delayed until the end of the phrase, and the initial ascent is embellished by chromatic passing tones. Diminution of the tones of the initial ascent with notes or figures of later levels is a very common technique.

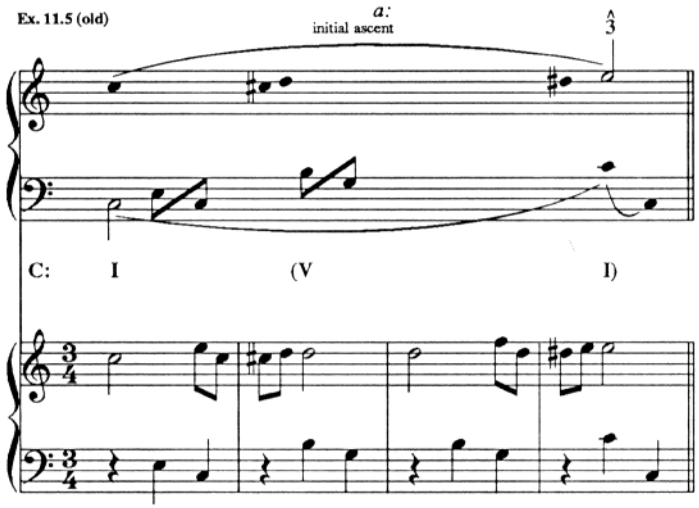
EXAMPLE 6.3 Haydn, Menuet in C Major



EXAMPLE 6.4 Chopin, Prelude in B Minor



EXAMPLE 6.5 Mozart, Violin Sonata, K. 6, Menuet



Generally, the displacement caused by the initial ascent does not affect the relationship between the fundamental structure and formal design, since the ascent is usually completed within the bounds of the first tonic-controlled

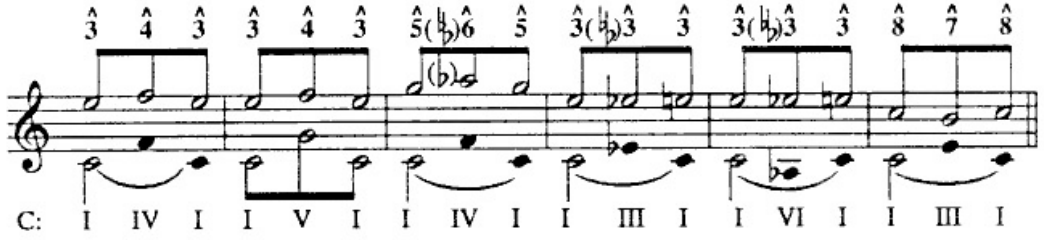
form division (a phrase for a short piece, perhaps a period or more for a larger composition). But there are exceptions. See, for example Schenker's reading of the first movement of Beethoven's "Moonlight" Sonata (*Free Composition,* Fig. 7a) or the theme of the second movement of the "Appassionata" Sonata (Fig. 40,8; also in Forte & Gilbert, p. 155). It is also possible for the underlying harmony to change from the tonic to some other chord at the point the first note of the fundamental line is reached, as several of the examples in Figures 39 & 40 of *Free Composition* demonstrate (see, for instance, Fig. 40,10).

The initial ascent is the only rising line allowed in the principal upper voice in the first middleground. In the second middleground or later one may also find a line from an established inner voice upward to a note of the fundamental line (see *Free Composition*, Figures 42,1 (Chopin) and 42,2 (Haydn)). Such lines are referred to as "motion from an inner voice" (mtn.inr.vc.). They are more likely to occur in developmental or transitional areas, as in the two figures just cited (but also look at the topmost graph in the Haydn sonata development analysis in *Five Graphic Music Analyses*). Rising lines appear more freely in the later middlegrounds and foreground, as lines leading from an inner voice to the main upper voice, from the latter to a cover tone, or as the smallest of diminutions. For the "initial descent" figure, see the section "Lines" below.

The initial ascent may be found in many compositions and is not limited to any genre. As supplementary reading on initial ascent, consult Chapters 9 and 10 of Forte and Gilbert.

NEIGHBOR NOTES TO TONES OF THE FUNDAMENTAL LINE

Example 6.6: Neighbor notes



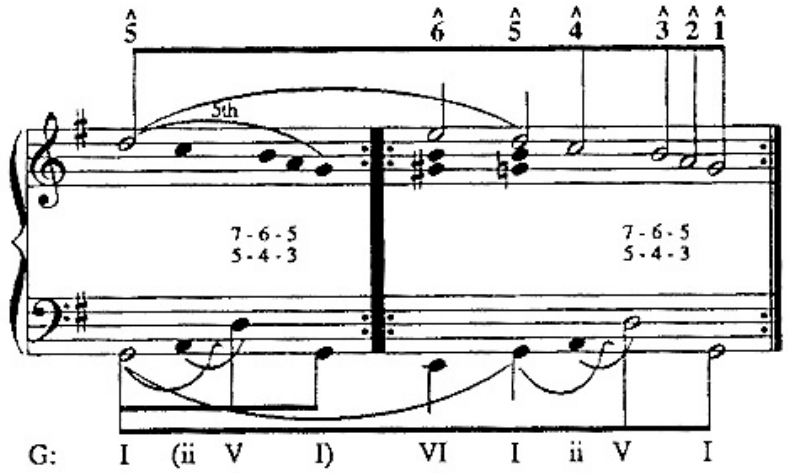
Motion with a neighbor note (n.n.) may occur at any structural level except the background. Tones of the fundamental line may be prolonged by first-middleground neighbor notes associated with a substantial key region, major formal division, or a strategic dramatic or formal

point in the composition. Neighbor notes may be diatonic or chromatic and in all but a very few cases are above the structural tone. The most common are ^4 embellishing ^3 or ^6 embellishing ^5. The non-tonic triad notes in the fundamental line (^4, ^2; or ^7, ^6 in the 8-line) are not so often prolonged by neighbor notes.

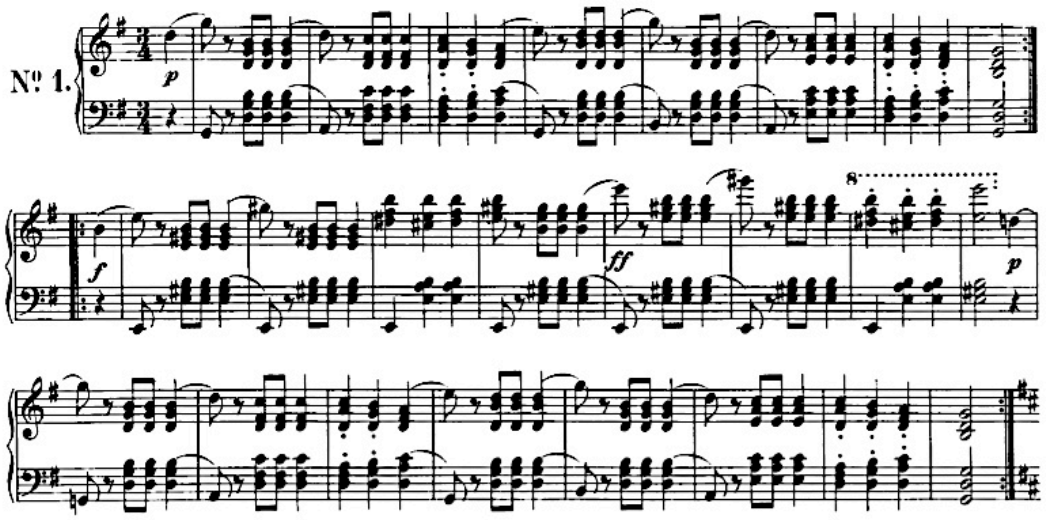
Only lines, the other class of step-wise patterns, will occur so often as neighbor notes at all levels. Incomplete neighbor motions, the escape tone and appoggiatura, are specialized variants. The escape-tone figure ^3-^4-^2-^1 may occur in earlier levels of structure, especially when the ^4 is associated with a IV or ii in the cadence that brings the fundamental line to a close. The appoggiatura may belong to the second middleground when it acts as a prefix to the first note of the fundamental line, thus "replacing" an initial ascent. Otherwise, the incomplete figures, whether escape tones or appoggiaturas, are generally foreground phenomena.

Schenker specifically forbids the diatonic lower neighbor to ^3, since this would duplicate the interruption figure. Chromatic neighbor notes are understood as resulting from mixture (see "Chromaticism" below).

The neighbor note often serves a form-generating function in the early middleground and an important role with regard to motivic design, as well. The neighbor note is essential to the interpretation of extended or compound ternary forms such as rondos (rondeaux) and dance pairs. Since middleground neighbor notes are usually well supported harmonically, they are easily prolonged. A typical example of a middleground neighbor note and mixture in a small dance form is the first of Schubert's *Wiener-Damen Walzer*, D. 734 (Ex. 6.7). The neighbor note ^6 generates section B1 and its harmonization with VI, which is prolonged as a key region, creates mixture. Note that the effect is emphasized by the lack of a returning modulatory progression.



EXAMPLE 6.7 Schubert,Wiener-Damen Walzer, D. 734, no. 1



Do not overlook the potential for even the smallest details of the latest levels to provide clues to hearing structural features. The anacrusis and bar 1 of this waltz offer three possible tonic-chord tones to begin the fundamental line. Of these three, the D5 is not the strongest candidate, because it acts as a pick-up note. In bar 2 the situation changes. We readily hear D5 as an appoggiatura to C5 (4-3 over the bass A), the eighth-rest notwithstanding. Thus, it is apparent that C5 is part of a foreground line that descends from D5 (D5-C5-B4-A4-(G4 implied)) in bars 1-4, not a neighbor note to the B4 in bar 1. Note that D5 in bar 2 can be understood as part of the underlying V7 harmony. Here, however, its melodic or contrapuntal role is clearly more significant. The motion E5-D5 in bar 4 confirms our hearing of this passage with another appoggiatura figure, this time embellishing the repetition of the structural note, ^5. Finally, in bar 6 the D5 becomes a simple non-chord-tone appoggiatura above ii. If the D5-C5 figures are clues to the principal upper voice at the beginning, the E5-D5 in bar 4 points toward larger-scale structures, since the complete neighbor figure D5-E5-D5 is the upper-voice motion in the first middleground for bars 1-17. One last detail: As E5 (^6) is prolonged in bars 9-16, the only figures used are repeated notes, simple chord arpeggiations, and neighbor notes (as in bars 11 or 15).[44]

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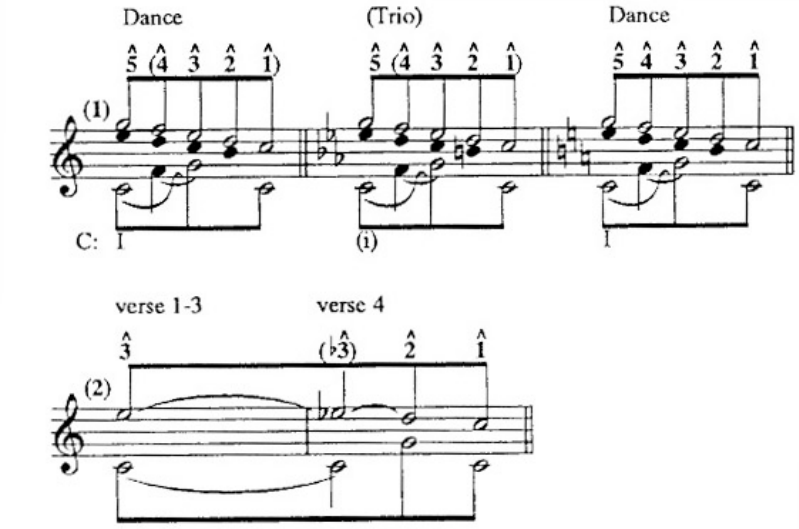
[44] For additional examples of neighbor notes, see *Free Composition*, Fig. 35,1 (Mozart, Sonata, K. 331, II); 40,1 (Chopin, Polonaise, op. 40, no. 1); 42, 1 (Chopin, Etude, op. 10, no. 2); 42, 2 (Haydn, St. Anthony Chorale); 76,5 (Chopin, Mazurka, op. 17, no. 1); 153,1 (Chopin, Ballade, op. 23); and 153,2 (Chopin, Etude, op. 10, no. 3).

MIXTURE (*MISCHUNG*)

Strictly speaking, the fundamental structure may contain no chromaticism of any kind. A background graph that includes inner voices may have chromatic tones, such as the leading tone in the minor key, in one of those voices, but not in the fundamental line or bass arpeggiation. The first middleground may contain neighbor notes, inflections arising from mixture, and leading tones. Later levels are increasingly freerer in their treatment of chromatic elements.

Thus, fundamental lines notated to include chromatic tones are actually fundamental lines plus one or more middleground elements, just as fundamental lines with interruption include a middleground element. Such "chromatic fundamental lines" include 1) a line from ^3 in which the mode changes, as, for instance, occurs in Schubert Lieder; see the model in the second part of Ex. 6.8a; 2) a line from ^3 with an inflection or chromatic neighbor note arising from mixture, such as Major: natural^3-b^3--natural^3; see Ex. 6.6 or *Free Composition*, Fig. 30,a (Chopin); or 3) a line with a chromatic passing tone, such as Major: natural^3-b^3-^2-^1 or ^8-^7-b^7-^6-^5-^4-^3-^2-^1; see also the second and fourth models in Ex. 6.8b.

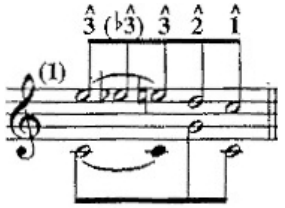


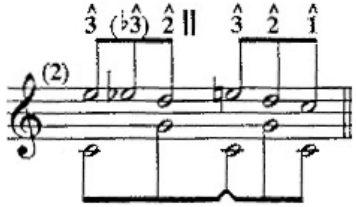
<--EXAMPLE 6.8a First-middleground forms generated by mixture, applied to dance pair (top) or 19th-century Lied (below)

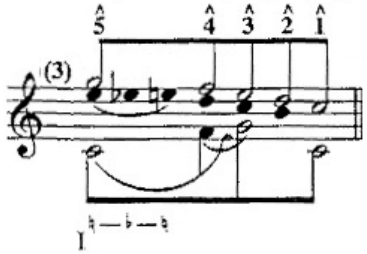
EXAMPLE 6.8b —> SEE NEXT PAGE
Some first-middleground forms generated by mixture

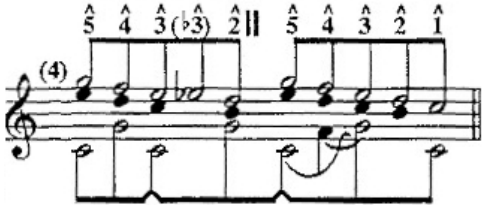
Chromaticism is interpreted as elaboration of a diatonic model: chromatic tones are understood to be altered diatonic tones. This corresponds for the most part with traditional views: for instance, the b^2 in the Neapolitan chord is an altered -natural^2; the chromatic mediant degrees are altered diatonic mediants; and so on. In the reduction phase

of work on an analysis, try to reduce a chromatic feature to the underlying diatonic model or else "contain" it as prolongation of some earlier-level diatonic feature. The analysis of Bach, C-Major Prelude, in *Five Graphic Music Analyses* shows both: 1) bar 23 of the score foreground contains a iiø6/5 harmony; this is shown as ii6/5 in the middleground; 2) chromatic tones in bars 1-19 are all understood as part of the foreground prolongation of the register transfer (coupling) of E5 to E4. In cases where the chromatic feature substitutes for a diatonic one which does not appear at all, implied tones or sonorities must sometimes be used. This is most likely to happen in later nineteenth-century music.









The source of chromaticism in the early middleground is mixture, a term referring to the nineteenth-century notion of "mixing" two tonalities or scale forms, so that tones or sonorities from one may be used in the other. The notion of "borrowing" or "borrowed chords" presented in harmony textbooks is the same. The topic may be divided into three points: 1) mode change (parallel major and minor); 2) chromatic mediant harmonic progressions; 3) b^2, which Schenker calls the "Phrygian ^2" and which applies mainly to the familiar Neapolitan chord.

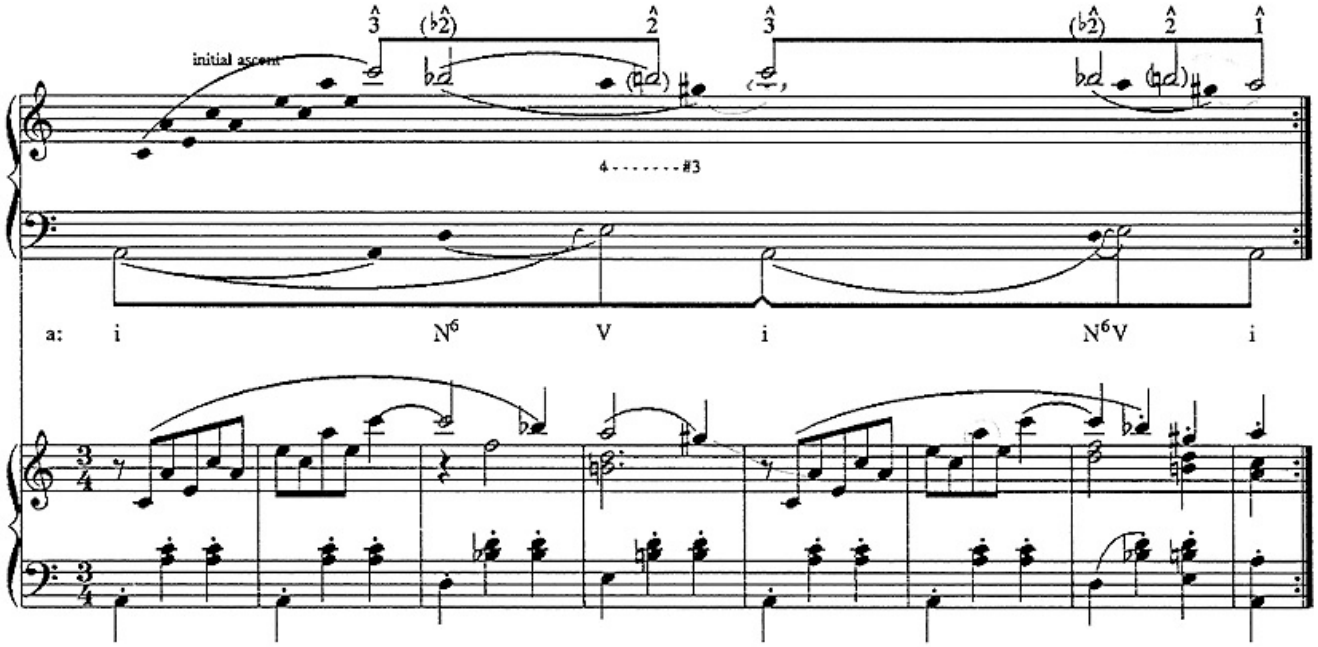
1) Some of the forms produced by direct mode change are illustrated in Ex. 6.8b. Those that return to the original mode are applicable to dance pairs and similar pieces: see the first part of Ex. 6.8a. In *Free Composition*, examine Figs. 40,6 (Beethoven, Sonata, op. 26, III) and 155,4 (Mozart, Rondo, K. 511).

2) The chromatic mediant progression produces a variety of patterns, some of which produce changes only in inner parts, not in the fundamental line. Change of bass (as in I-bIII) below ^5 or the harmonization of a chromatic neighbor note may be sources of chromatic mediants. In addition to Ex. 6.7 above, we cite Schenker's Fig. 30,a (Chopin, Mazurka, op. 17, no.3) with natural3-b3--natural3 above I-bVI-I.

3) The Phrygian ^2 or b^2 is used in reference to the Neapolitan Sixth (N6), which is understood as an altered

ii°6 -- therefore, the b^2 is derived from -natural^2. Since the b^2 normally moves downward to^1 and ^7, the -natural^2 must be added in parentheses: b^2 (-natural^2)-^1-^7. Schenker illustrates the b^2 in *Free Composition*, Figure 31.

EXAMPLE 6.9 Beethoven, Bagatelle, op. 119, no. 9



LINES (ZUG; PLURAL ZÜGE)

Lines are the most common of all melodic phenomena at every level. With rare exceptions, lines must fill consonant intervals, and those intervals should be capable of interpretation as the composing-out of intervals in underlying harmonies (with allowance for functional substitution). (The exceptions are mostly in the bass, since lines there often fill in harmonic steps (that is, motion between chord roots). Normally, the first pitch of a descending line is the one that belongs to the next larger level, but the last pitch of an ascending line. Thus, a descending line signifies motion from an upper voice to an inner voice, but an ascending line motion from an inner voice to an upper voice. Lines in the middleground often function as the main structural features of the upper part in form sections.

The treatment of the different classes of lines varies depending on the context, position in upper voice or bass, type of harmonic support, and so on, but we can make a few general comments.

The third-line (3-line) is certainly the most common of all. These lines fill the thirds in underlying chords, frequently appearing in the foreground as offshoots from a main tone into an inner voice, or "inner-third-lines" (*Innenterzzüge*: inr.3-line). In foreground and middleground, a special type of inner-third-line moves from ^2 downward to ^7, often in cadential situations: the leading-tone third-line (*Leitton-Terzzug* : l.t.3-line). The standard resolution of the b^2 in the Neapolitan chord—b^2 (-natural^2)-^1-^7—is a chromatic variant of the leading-tone third-line--see Example 6.9, the notes Bb5-A5-G#5 in the cadence.

Fifth-lines also appear frequently and, in descending form, are often used for longer spans of music with prolongation of the individual elements, as, for instance, the main upper-voice pattern in a tonally closed form section (see Ex. 6.7, bars 1-8). The second-order fifth-line from ^2 is another example (most extended forms with interruption make use of this, including the sonata). Rising fifth-lines appear in the bass covering the interval from^1 to ^5, the fifth usually being subdivided into two thirds or a third and the functional progression IV-V or ii6 -V. (Also see *Free Composition*, pp. 76-77; Fig. 88.)

Fourth-lines are typically found where the upper voice starts on the fifth scale degree and descends to the second in conjunction with harmonic motion from I to V. This is one of the few instances where an upper-voice line does not have the support of a single harmony. In the bass, the fourth-line acts like an inverted fifth—that is, it covers the distance from ^5 to ^8—but it can also move from^1 (or ^8) downward to ^5. The same motions in the upper voices are normally foreground details, though an "initial descent" is possible. This is a special type of unsupported stretch (*Leerlauf*), that is, a linear motion from a superimposed inner voice or cover tone downward to the first note of the fundamental line. The "initial descent" is not a frequent occurrence and normally involves a line from ^8 down to ^5, or rarely a line from ^8 down to ^3—see the discussion and example in Forte & Gilbert, pp. 181-183. (Also see *Free Composition*, p. 76; Fig. 87.)

Lines of the diminished fifth or augmented fourth are possible in the foreground, but are often better read as incidental lines within the unfolding of an interval in a dominant seventh or diminished seventh chord.

Sixth-lines occur in later levels and may often be interpreted as "filled-in" unfoldings (that is, the unfolded in-

terval of the sixth takes priority over the line that leads through it). (Also see *Free Composition*, p. 77; Fig. 89.)

Lines of the seventh or ninth are not true lines; they are composed-out steps to which register transfer has been applied. They are frequently divided into thirds and are often found in sequence constructions. The most likely line of the seventh is one that spans the distance from the root to the seventh of an underlying seventh chord, such as V7 or ii7. See *Five Graphic Music Analyses*, Haydn Sonata development (also in *Free Composition*, Fig. 62,1). (Also see *Free Composition*, p. 77; Figs. 62,1-4.)

The line of the octave is usually best understood as an embellishment of a register transfer. An octave-line may also be subdivided, usually into a fifth and a fourth (^1-^5, ^5-^8, respectively), but occasionally into other intervals as well (fourth and two thirds; three thirds and a second). The section Register Transfer below has more information. (Also see *Free Composition*, p. 77; Fig. 90.)[45]

INTERRUPTION (UNTERBRECHUNG)

Interruption is one of the most common features of the first middleground, but it may occur at any later level as well. The figure ^3-^2 is understood as an interrupted third-line ^3-^2-(^1), and ^5-^4-^3-^2 as an interrupted fifth-line ^5-^4-^3-^2-(^1). The second ^3-^2 and the apparent fourth-line ^5-^4-^3-^2 are acceptable under these circumstances, even though the interval outlined is not part of one underlying triad. The interruption is one of the most powerful delineators of formal design and, according to Schenker, is a requirement for the sonata.

For a typical example of interruption in the sonata, see the section on Beethoven, Piano Sonata, op. 14, no. 2, I in Chapter 7N below. Finally, a detail of notation: the two vertical lines that further identify the interruption should be placed immediately after the ^2, not at the end of any prolongation of the ^2 that might follow.[46]

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[45] As additional references, use Chapter 19 of Forte & Gilbert, particularly the cautionary section “dissonant and false linear progressions” (pp. 240-245). Also consult the discussion of the combination of lines in *Free Composition*, pp. 78-82.

[46] Also, see *Free Composition*, Figs. 7a (Beethoven, op. 27, no. 1, I); Fig. 12 (Chopin, Etude, op. 10, no. 12)—also in *Five Graphic Music Analyses* ; 22b (Schumann “Aus meinen Thränen spriessen”); 35,1 (Mozart, K. 331, II); and others.

REGISTER TRANSFER

Register transfer is displacement of any note in the voice leading by an octave, either up or down. The voice leading for the part involved may then continue in the new register or at some point return to the original, perhaps by way of a second register transfer. Register transfer may be used at any level of composing-out except the background and is accomplished by direct octave leap, by arpeggiation, by line, or by a combination of arpeggiation and line. Several German terms are associated with this technique. Here is a list, although we should emphasize that *you are not obliged to use any of these terms; "register transfer" as a general term is sufficient for most purposes*.

1. *Höherlegung*, translated in *Free Composition* as "ascending octave transfer" or "ascending register transfer," (asc.rg.tr.) refers simply to moving a note or voice up an octave.

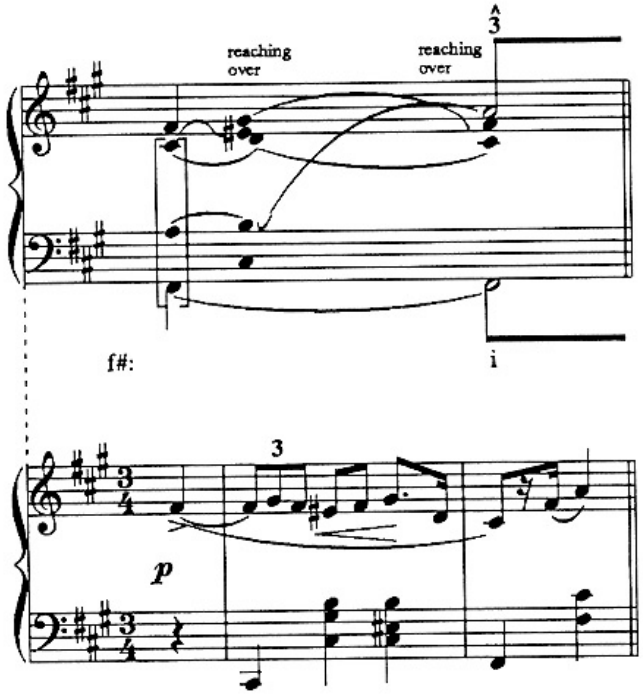
2. *Tieferlegung*, "descending octave transfer" or "descending register transfer," (desc.rg.tr.) refers to moving a note or voice down an octave.

3. *Übergreifen* or "reaching-over," (rg.-ov.) refers specifically to an ascending register transfer of a figure of two or more notes in descending stepwise motion (such as F-E or Bb-A). The term also emphasizes the leap over another continuing voice (usually the principal upper voice). Often, reaching-over will occur two or three times in immediate succession. Instances of reaching-over are shown in Exs. 6.11a & b. Forte & Gilbert call *Übergreifen* "overlapping."

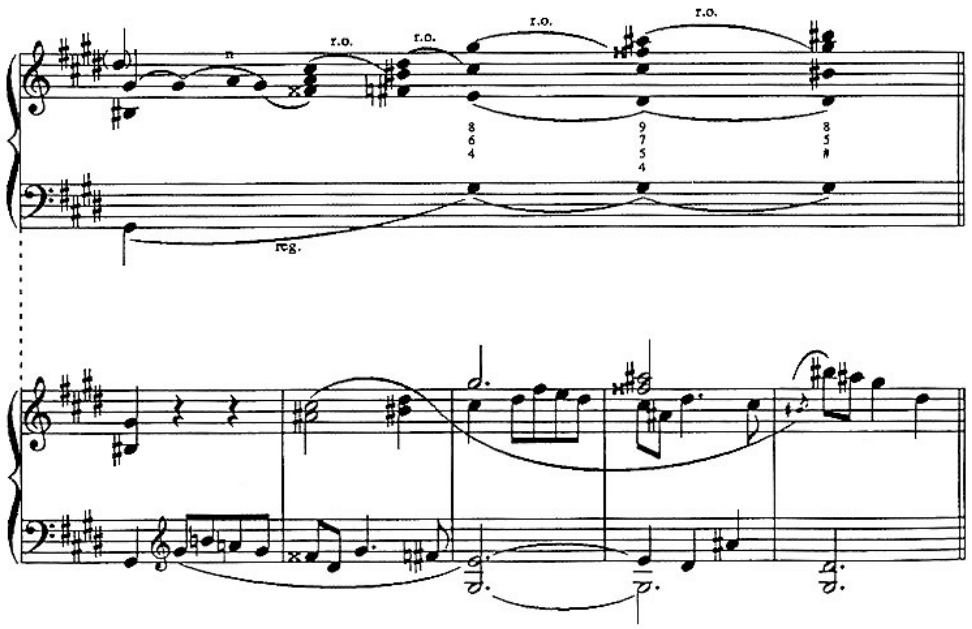
4. *Untergreifen*, literally "reaching-under," includes not only motion from an upper voice into the inner voices, but also the correcting "motion from an inner voice" that returns to the correct upper register. "Motion from an inner voice" (mtn.inr.vc.) is the translation used in *Free Composition*.

5. *Koppelung*, or "coupling," is the middleground phenomenon of linear "doubling" of a tone or tones of the fundamental line. For example, where the latter is E5-D5-C5, coupling may produce a figure E5-(E4-D4)-D5-C5—as in the C Major Prelude from the Well-Tempered Clavier.

EXAMPLE 6.11a Chopin, Mazurka, op. 6, No. 1 bars 1-2



EXAMPLE 6.11b Chopin, Mazurka. op. 50, No. 3, bars 37-41

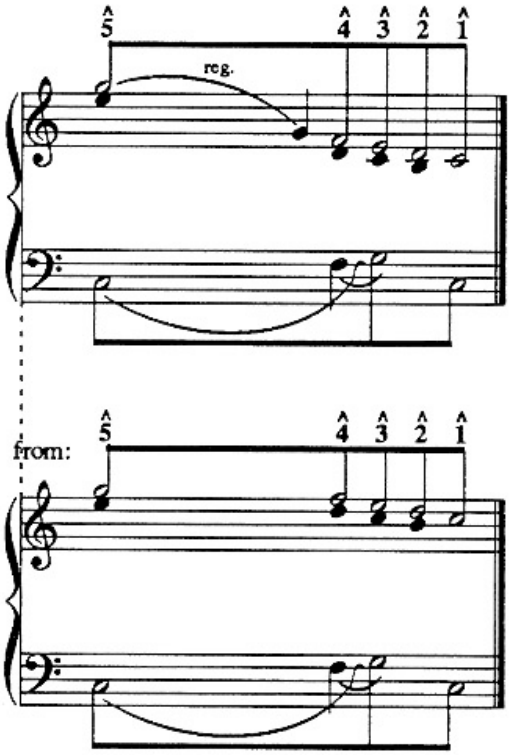


Register transfer in its various guises may be applied to any note of the fundamental line, but it is a more common technique in the later levels. Early in a composition, a change of register upward from the first note of the line often indicates initial ascent. Also, register transfer applied to^1 typically belongs to the foreground or the later middleground.

Reaching-over belongs to the foreground, but it may also function as a middleground device when it is involved in initial ascent patterns. Middleground coupling of registers, on the other hand, is common, especially if a note of

the fundamental line is involved. Once registral relations have been established by the couplings, it is possible to develop progressions that incorporate register in a structural (even motivic) fashion, not merely as a decorative factor (or simple diminution).

EXAMPLE 6.12 Correction of register for obligatory register



Register transfer, including coupling, may not be part of the background. There the fundamental line must move within a single octave: this is the rule of obligatory register (*obligate Lage*). If the fundamental line actually closes in a different register than it began, it must be assumed that a register transfer or coupling has occurred in the first middleground and this must be "corrected" in the background (as in Ex. 6.12). The register may be either that of the fundamental tone or of the final descent of the fundamental line.[47]

ARPEGGIATION

Arpeggiation (arpeg. or arp.) is one of the most direct ways to prolong or unfold an underlying harmony. A figure may be generated in any voice by arpeggiation of a supporting harmony, and arpeggiations frequently coincide with passing melodic motions filling in some or all of the spaces of the chord intervals. In the middleground, arpeggiation is employed in particular in connection with elaboration of the fundamental bass motion from I to V, or I-III-V (i-III-V in the minor), with the initial ascent, and as a subsidiary part of a coupling figure.[48]

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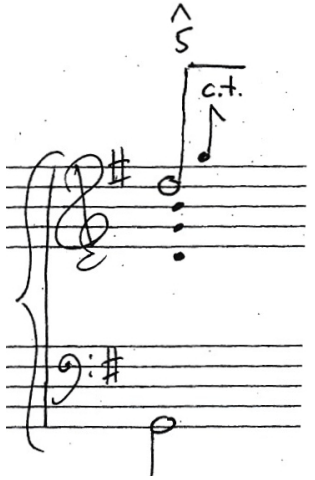
[47] Also, see *Free Composition*, Figs. 41, 42, 101, 102 (several examples in each figure). The discussions of coupling in Forte & Gilbert are concise and clear (pp. 167-169, 260-264), as is their first discussion of overlapping (p. 221).

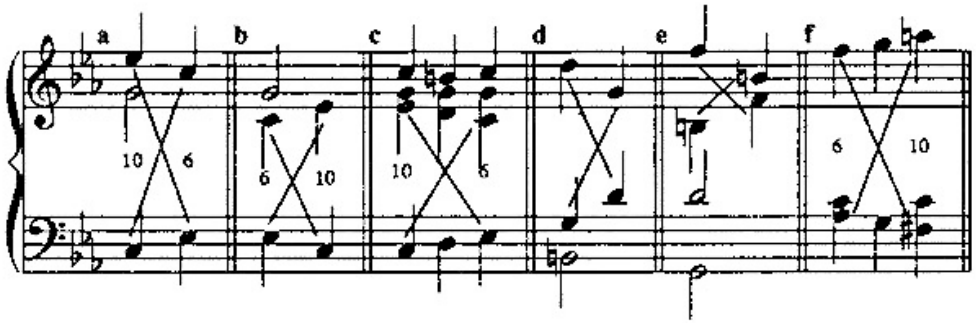
[48] Deleted: EXAMPLE 6.13 Chopin, Mazurka, op. 59, no. 1, bars 1-4 melody only; EXAMPLE 6.14 C. P. E. Bach, Sonatas, Rondos, and Fantasies, vol. 4, Rondo in A, bars 1-4. See page 10, note 6.

BOUNDARY PLAY (*RÄNDERSPIEL*) AND COVER TONE (*DECKTON*)



Activity above the primary voice is boundary play. If one tone in boundary play is emphasized or isolated, it is a cover tone. More often than not, the cover tone will belong to the tonic triad, but this is not a requirement. Schenker says of the cover tone that "it constantly attracts the attention of the ear, even though the essential voice-leading events take place beneath it" (*Free Composition*, p. 107). Boundary play is used in later middlegrounds and the foreground; it is often easiest to regard it as the elaboration, or even prolongation, of a cover tone. The symbol used for the cover tone is a stemmed closed note with "c.t." or a flagged note with or without "c.t." Boundary play may be identified by "b.p." or "b. play." A simple example of a cover tone is G5 at the beginning of Schubert's Ländler, D. 734n1 (score in Example 6.7): [49]

VOICE EXCHANGE (*STIMMTAUSCH*)



Voice exchange is a derivative of simple chordal unfolding. The most common form is in Ex. 6.16a-c; Exs. 6.16d-e are less common. The exchange occurs within a single harmony, though there may be intermediate embellishing chords. Exceptions are made for harmonies that are functionally identical and related at the

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[49] See *Free Composition*, Fig. 75 (a complex collection of cover tones in a Chopin mazurka). Forte & Gilbert discuss the cover tone on pp. 223-228. The flagged note in the upper parts, incidentally, may also be used to identify "interesting notes"; that is, foreground notes to which you want to draw attention for some reason (because of an unusual chromaticism, reference to a significant register, or other feature) but which are not otherwise significant in the main voice-leading progressions.

third, such as V and vii° or I and vi. Chromatic changes may also be applied, as in Ex. 6.16f, where the functional relationship is more complex: both iv6 and vii-º/V lead to V).

Like the register transfer, voice exchange may be a simple prolonging device without effect on the voice leading or it may join or connect with continuing voices. Voice exchange occurs mainly in the foreground.

UNFOLDING (AUSFALTUNG)

Unfolding (unf.), which was discussed in connection with the bass in Chapter 1, may be described as a special case of composing-out by arpeggiation. (It is also an optional mode of notation.) In the upper parts, unfolded intervals most often come in pairs (or longer series) and are most often thirds or sixths. The pair º5-3 or +4-6 is also possible.

It is often difficult to know whether to apply the special unfolding symbol in the upper parts. Normally, use it in the following circumstances:

1. For pairs of thirds in the foreground;

2. For º5-3 or +4-6 in foreground or middleground;

3. For º5 or +4 in isolation (to avoid notating a line of the tritone, or to emphasize the interval rather than the line);

4. Rarely, for parallel diminished fifths or augmented fourths;

5. For the isolated composed-out interval (most often the sixth, occasionally the tritone, not the octave) where there is no complete or correct line. Instead of an octave unfolding, use register transfer.

The technique of unfolding belongs to all the levels (except the background), but is most common in the foreground. Unfoldings may sometimes be presented on a larger scale, controlling many foreground diminutions, as well as problematic foreground passages in which underlying harmonic/voice-leading derivations are difficult to assess,

due to complicated chromatic motions and the like.[50]

Finally, we repeat a point about notation from Chapter 1: Always write the unfolding symbol so that the stems of the notes point "inward"; that is, toward the center of the interval being unfolded. This makes a much more compact, better-looking symbol than pointing the stems "outward" or away from the interval.

NOTE ON MOTIVIC PARALLELISMS

Felix Salzer wrote that "the structural. . . framework represents the fundamental motion to the goal; it shows the...shortest way to this goal. The whole interest and tension of a piece consists in the expansions, modifications, detours and elaborations of this basic direction, . . the prolongations. . . . In the reciprocity between structure and prolongation lies the organic coherence of a musical work" (*Structural Hearing*, p. 14). This "structural framework" is the fundamental structure; the prolongations are all the features of the structural levels resulting from composing-out. These features may be harmonic, melodic, contrapuntal, motivic, registral, formal, rhythmic, or metric, and the ways in which these aspects may be combined or emphasized are myriad.

The recurrence and interaction of motives at the various structural levels was very important to Schenker; in fact, at times he seemed to regard it as a means of structuring melody nearly equal in importance to the fundamental line. Instead of the common nineteenth-century understanding of melody, which was essentially narrative, with its leading motives and thematic development, Schenker wanted melody to be another element in the complex but organically unified musical system of each composition. Master composers, in other words, were understood to "improvise" motivic connections between the levels in the course of composing-out from the background.

Most analyses will "automatically" reveal certain kinds of motives—lines in the middleground duplicated in the foreground are the most likely candidates—but their motivic qualities are generally of less interest than their position and function in the tonal design and process. For this, Charles Burkhart introduces the term "*Ursatz* parallelism"—when a motive in a small span of music (foreground) duplicates one covering a far longer span (back-

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[50] For examples, see *Free Composition*, Figs. 46,2 (Schubert); 47 (Mozart); 103 (several examples). Also consult Forte & Gilbert, pp. 251-60.

ground). Burkhart's frequently cited article on motivic parallelisms is regarded as the "classic treatment" of the subject in Schenkerian analysis,[51] and he argues that, because of its generality (and the abstract nature of the *Ursatz*) "*Ursatz* parallelisms" alone normally do not create significant motivic associations within a composition. He finds instead that the motivic parallelisms of various motives in the score and their "hidden repetitions" in middle-level segments are "much more unusual and interesting." Thus, he "suggests that motivic parallelisms operate within individual pieces" rather than as symptoms of a tonal system.[52]

Be aware that not every composition will reveal tightly interwoven, exhaustive motivic networks. This would be the ideal, but it adds a layer of difficulty to analysis, too. Another way to say this: it is by no means demonstrated in the literature that such a perfect correspondence of all elements and their development exists in traditional European tonal music. Most writers—Schenker included—have been content to discuss concealed repetition only informally where it can be drawn into the discussion, without making it a requirement. Therefore, while working out an analysis, be aware of the possibility of recurring motives, but it is important not to make decisions about the bass or the fundamental line based primarily on a search for the right motives—the convincing progression of harmony and voice leading must come first. On the other hand, don't ignore it: a study of motivic development, when appropriate, may be integrated into—and enriched by—Schenkerian tonal and voice-leading analysis.

To illlustrate both the possibilities and the limitations, let's look again at Schubert, *Wiener-Damen Walzer*, D. 734 no. 1. At the right on the next page is the analytical graph from Ex. 6.7.

Section A is a closed tonal unit in G major, I-V-I with a fifth line in the melody. The first half of section B is also tonally closed in E major, with the single middleground feature of mediant harmony in the main key, I-VI-I. After that a reprise of A is complete and literal, so that the descending fifth line is now heard as the background descent. The two features of the melody, then, are the line and the neighbor note.

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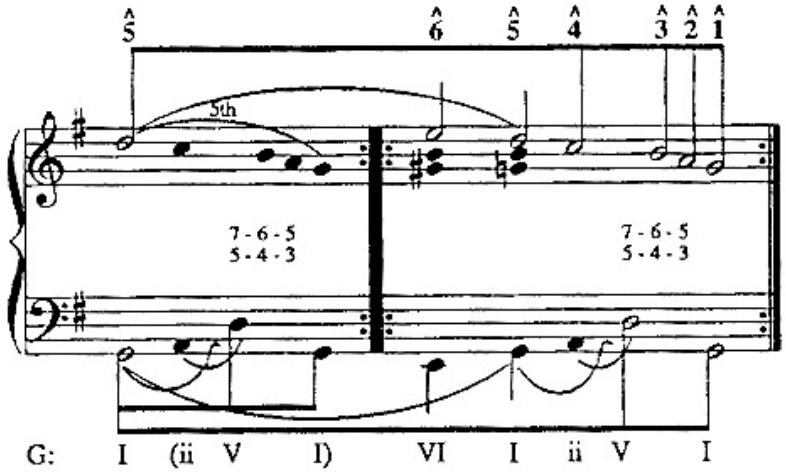
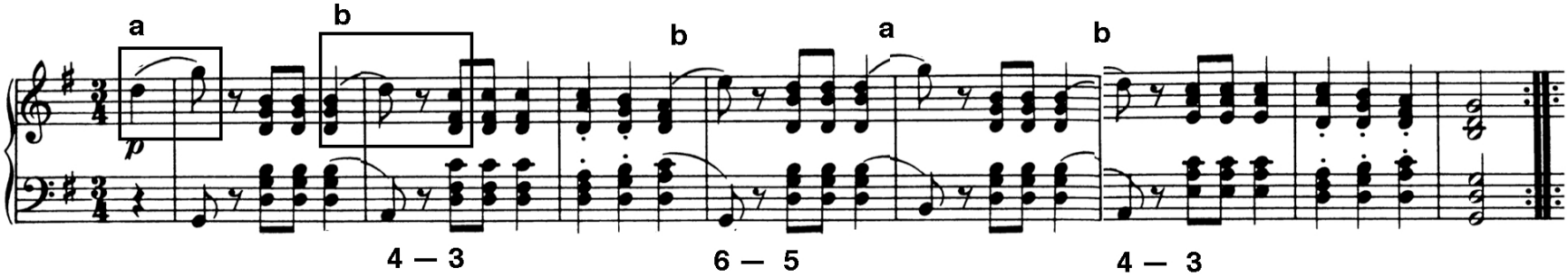
[51] "Schenker's 'Motivic Parallelisms'," *Journal of Music Theory* 22/2 (1978): 145-175.

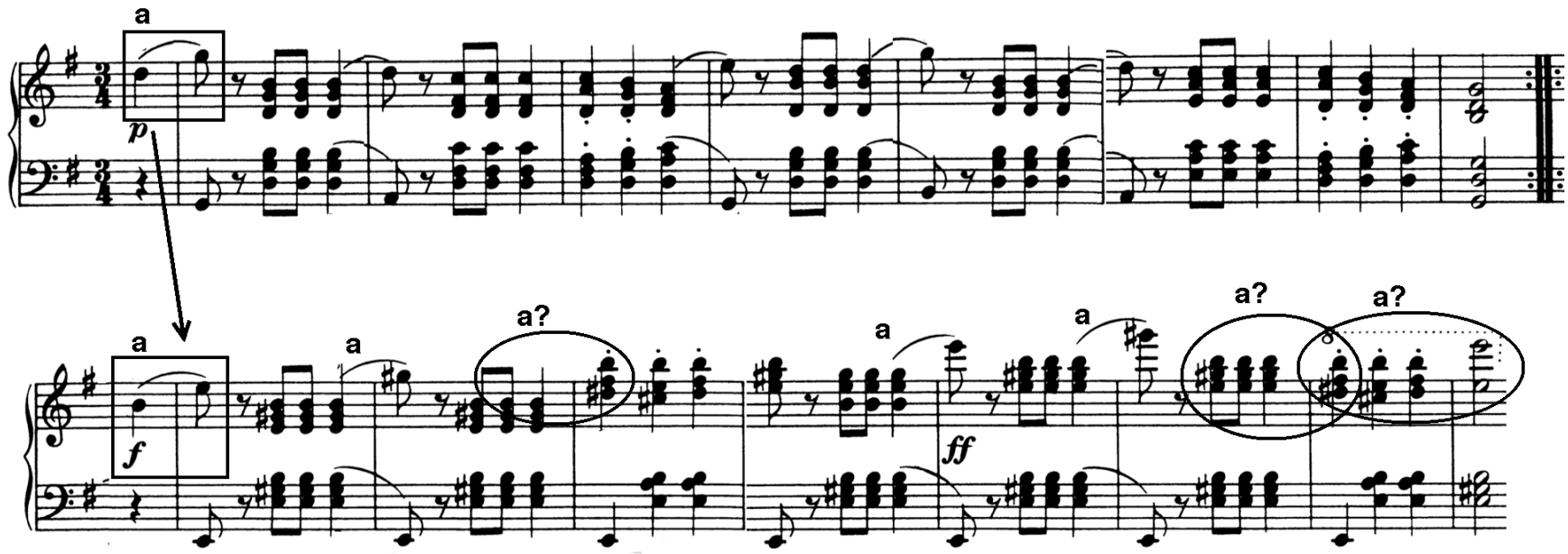
[52] According to Lauri Suurpää, who follows Burkhart, Allen Cadwallader does the opposite, arguing that "that the origins of the motivic network of a specific piece can be traced to configurations so fundamental to the tonal system that they transcend individual works." Allen Cadwallader, "Prolegomena to a General Description of Motivic Relationships in Tonal Music," *Intégral* 2 (1988): 1-35; Lauri Suurpää, "The Path from Tonic to Dominant in the Second Movement of Schubert's String Quintet and in Chopin's Fourth Ballade," *Journal of Music Theory* 44/2 (2000):451-485.

We don't hear a neighbor note in the opening, but we do hear a motion upward, a leap that is more emphatic than a neighbor note -- at "a". At "b" the leap is complicated by the harmony; it's no longer consonant, it's the dissonance in a 4-3 accented neighbor figure. Figures "a" and "b" are repeated, till the pressure downward exerted by the 4-3 is expanded in bars 7-8 into the line to the cadence.



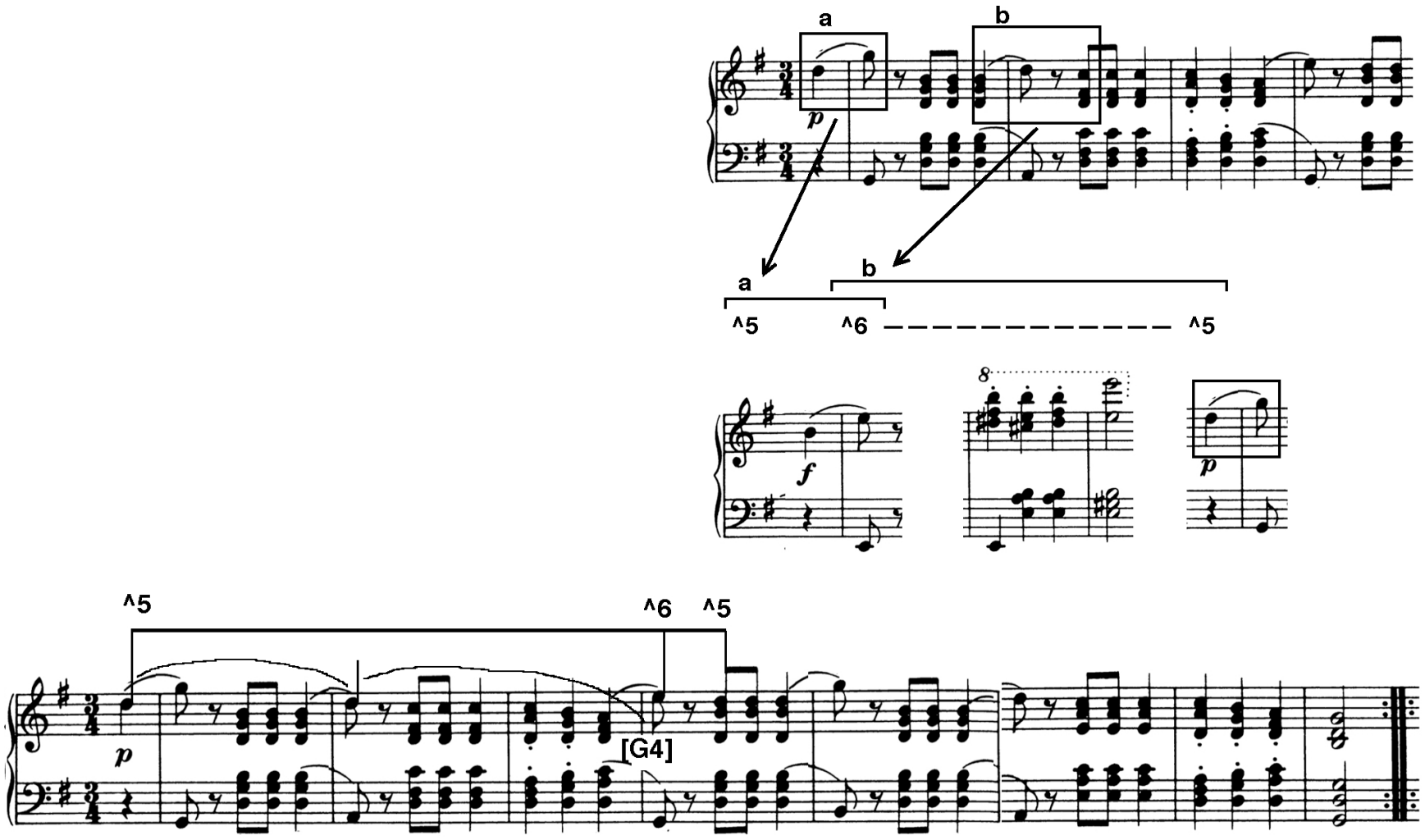


Section B obviously draws on A but is even simpler in its figures. Motive "a" is developed throughout, effectively in every bar except the immediate movement from third to the fourth.



Beyond these unmistakable relations, sections A, B, and the reprise of A are related motivically at an abstract level: “a” rises, “b” falls -- this relation can be read into the middleground neighbor note figure D5-E5-E5, or ^5-^6-^5, as shown at the right.

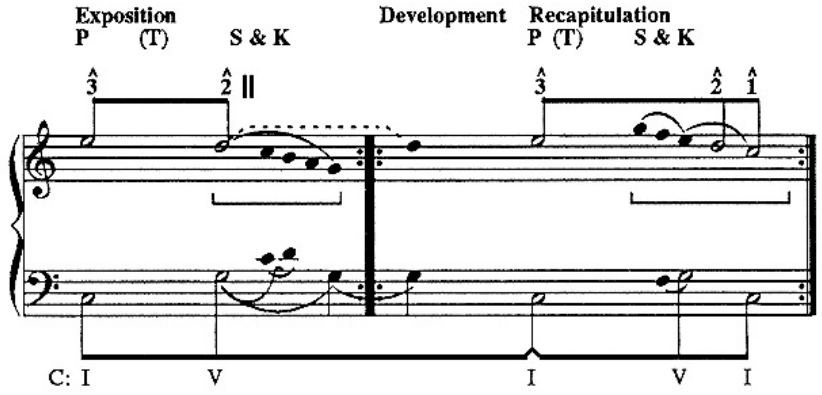
If this is too abstract, we can find a much more direct and plausible motivic parallelism of the kind that Burkhart studies in his article--see below. The middleground neighbor note figure finds its foreground counterpart in the first phrase, where ^5 is registrally distinct and is easily heard as connected to ^6 (E5) on the downbeat of bar 4. (In the meantime, D5 in its dissonant version pushes a line down in bars 2-3, the logical endpoint G4, however, being missing. We’ll hear it the second time around, in bar 8.)


a
b
p
a
b
^5
^6
^5
f
8
p
^5
^6
^5
p
[G4]

CHAPTER 7N: SONATA FORM

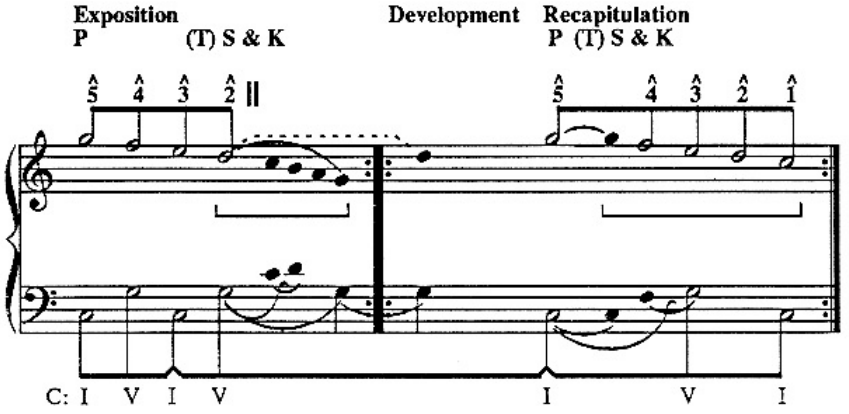
In Exs. 8.10 & 8.11 are the basic components of the tonal/voice-leading structure of typical sonata movements in the major key, with fundamental lines from ^3 or ^5.

EXAMPLE 7.10/8.10 Model for a sonata movement, major key, line from ^3



Schenker accepts the three main divisions, exposition, development, and recapitulation, but he labels them the main section, the middle section, and the repetition, and he has his own view of their proper contents.

EXAMPLE 7.11/8.11 Model for a sonata movement, major key, line from ^5



The exposition or main section has two essential prolongations—in Ex. 8.10, these are ^3 over I and ^2 over V. The prolongation of ^2 over V is a middleground fifth-line in the key region of V (shown with a bracket in the example). Schenker says of this that "it is designated by conventional theory as the second theme. . .or the like. . . .Once more I must emphasize that these are in every respect inadequate terms and concepts that afford no insight into sonata form." He insists that "a fifth-progression in itself suffices for the prolongation of [^2 over V] without necessarily involving a 'lyrical' or 'contrasting' theme" (*Free Composition*., p. 135).

Of course, none of this applies to second-theme areas in the mediant or other non-dominant key region. In

such cases, the prolonged first tone of the fundamental line or a middleground neighbor note is the controlling structural feature, though a descending line will typically also lead from it. Last-moment moves to the dominant in a first ending are usually ignored.

Schenker also rejects the sense of "working out" for the development or middle section; instead, its "only obligation, according to the structural division, is to complete the motion to [^2 over V][or in some way to expand that point]" (p. 136). Thus, in the models, the development is shown simply as a later middleground extension of ^2 over V. One feature that does occur with some regularity is a "late" middleground line starting from some dominant chord tone and moving to the ^2 (or sometimes ^4, as the seventh of V7). In sonatas where the exposition ends in the mediant, the development either reaches ^2 over V quickly and then prolongs it or, more commonly, reaches the ^2 over V in the "retransition" near the end of the section.

The recapitulation or repetition accomplishes "the closure of the fundamental line and the bass arpeggiation" (p. 137). The distribution of elements is shown in the example, with the bracket showing the transposition of the fifth-line from the exposition.

This concept of the sonata form has a number of points to recommend it. First, it is sufficiently broad to account for almost any sonata movement written in the eighteenth or nineteenth centuries, including those without clearly defined second themes, those without "proper" developments or recapitulations, and even those with unusual tonal schemes. Second, it is consistent with many twentieth-century views of the sonata as an organic and dramatic form; in fact, a "drama of tonalities." Finally, it is consistent with those later eighteenth-century and some nineteenth-century descriptions that emphasize main divisions and tonal structure but not themes or theme areas.

The models of the binary designs apply directly to the sonata, only in expanded form, and the variants are not so many as one might think from the size of the repertoire. For our purposes, then, the sonata form poses few special problems other than the luxuriance of detail that one will find in any composition of substantial length.

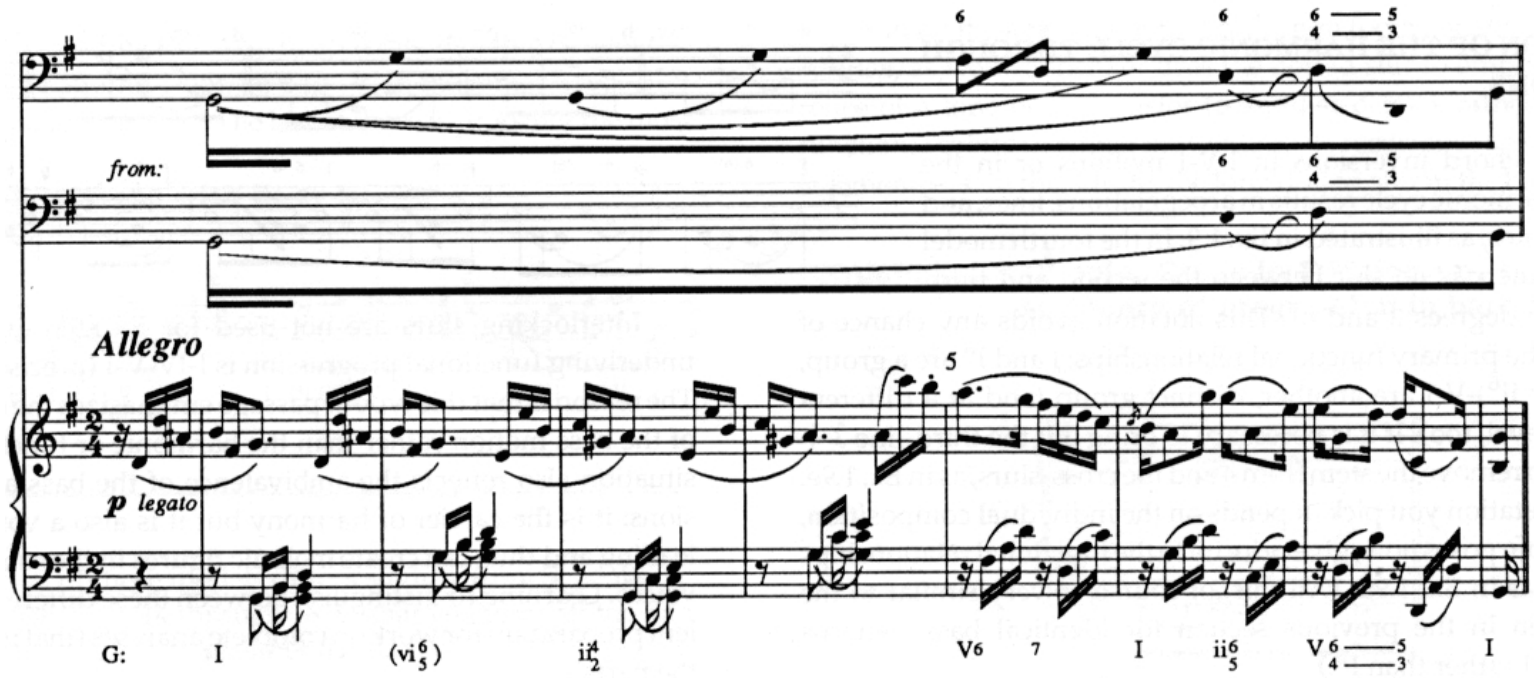
The traditional main-theme area contains any initial-ascent pattern and at least the first tone of the fundamental line, which may be from ^3 or ^5 (but not ^8 because of the problem of fitting the ^8 -line's division into the formal design). The main-theme area or subsequent transition will contain a descent to ^2 over V. The distribution of elements can vary considerably, but those things listed above will occur. Rarely, the descent to ^2 occurs in the

second-theme area, and it is, of course, lacking when the second theme is in the mediant, as in many sonatas in the minor key, for example.

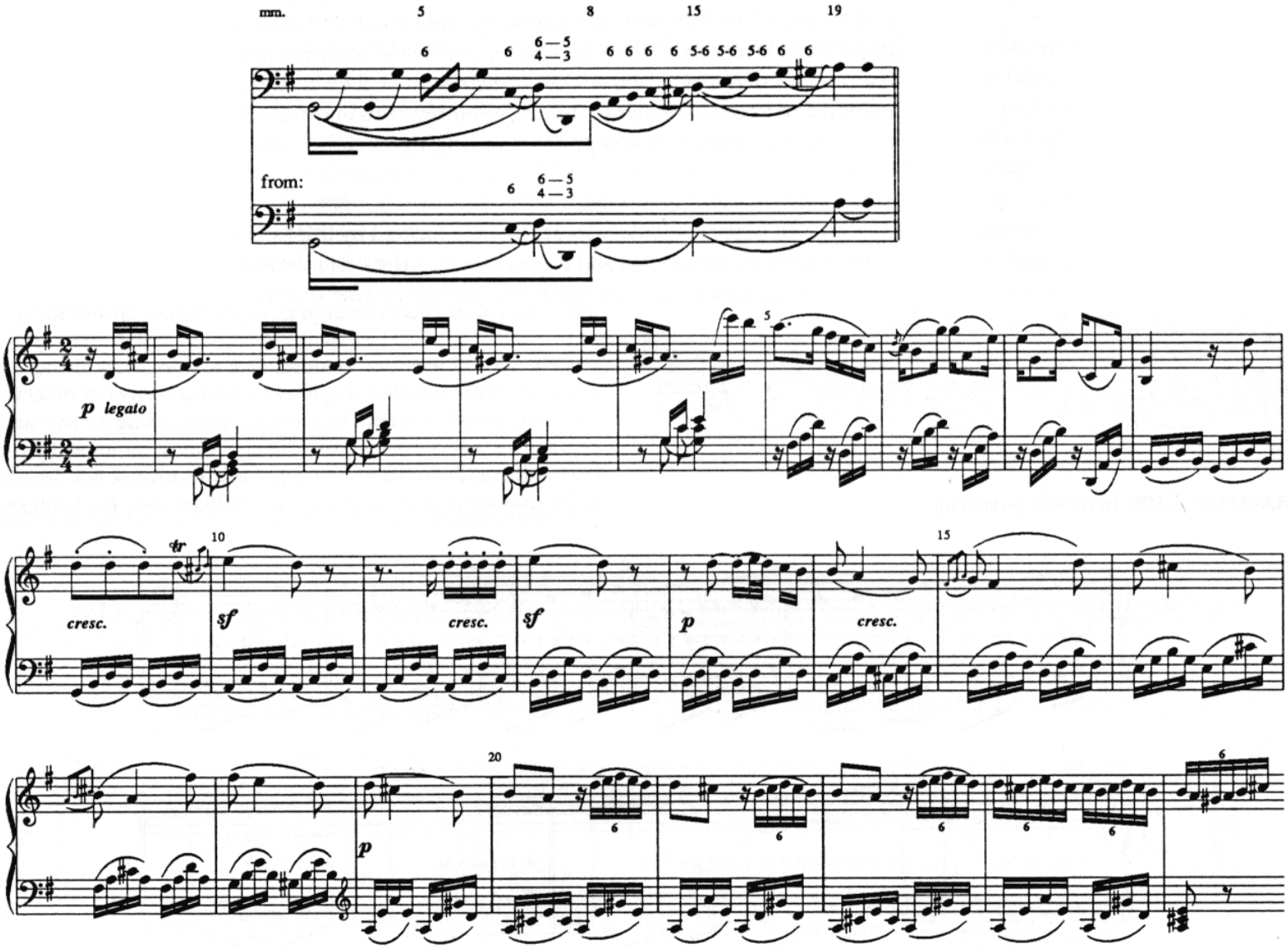
[INSERTION 1 from the original publication Chapter 1:]

See the opening of the first movement of Beethoven, Piano Sonata, op. 14, no. 2 in Ex. 1.10 below, a bass-line sketch of the main theme. Below that is Ex. 1.18, which expands Ex. 1.10 to include the arpeggiation I-V (G-D, bars 1-15) as well as the subordinate arpeggiation V: I-V (D-A) that follows and completes the transition.The upper sketch in Ex.1.18 is very detailed and follows all the chord changes in the score, whereas the lower sketch shows only the framework of the passage.

EXAMPLE1.10 Beethoven, Sonata, op. 14, no. 2, I, bars 1-7



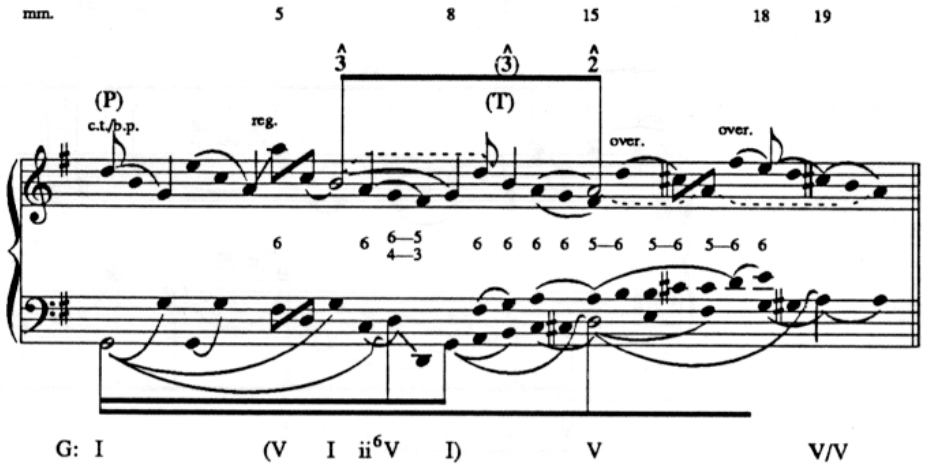
EXAMPLE1.18 Beethoven, Piano Sonata, op. 14, no. 2, I, bars 1-23



[END INSERTION 1]

Overall, the exposition of this movement follows the familiar models—see Ex. 8.12). An initial ascent leads from G4 to B4 (the ^3), and the interruption occurs relatively early in the transition.[53]

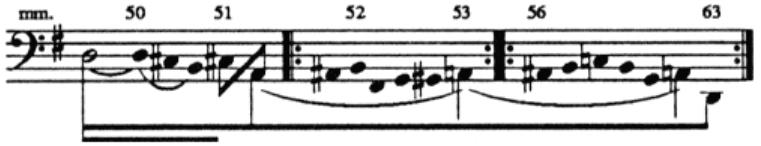
EXAMPLE 8.12 Beethoven, Piano Sonata, op. 14, no. 2, I, opening



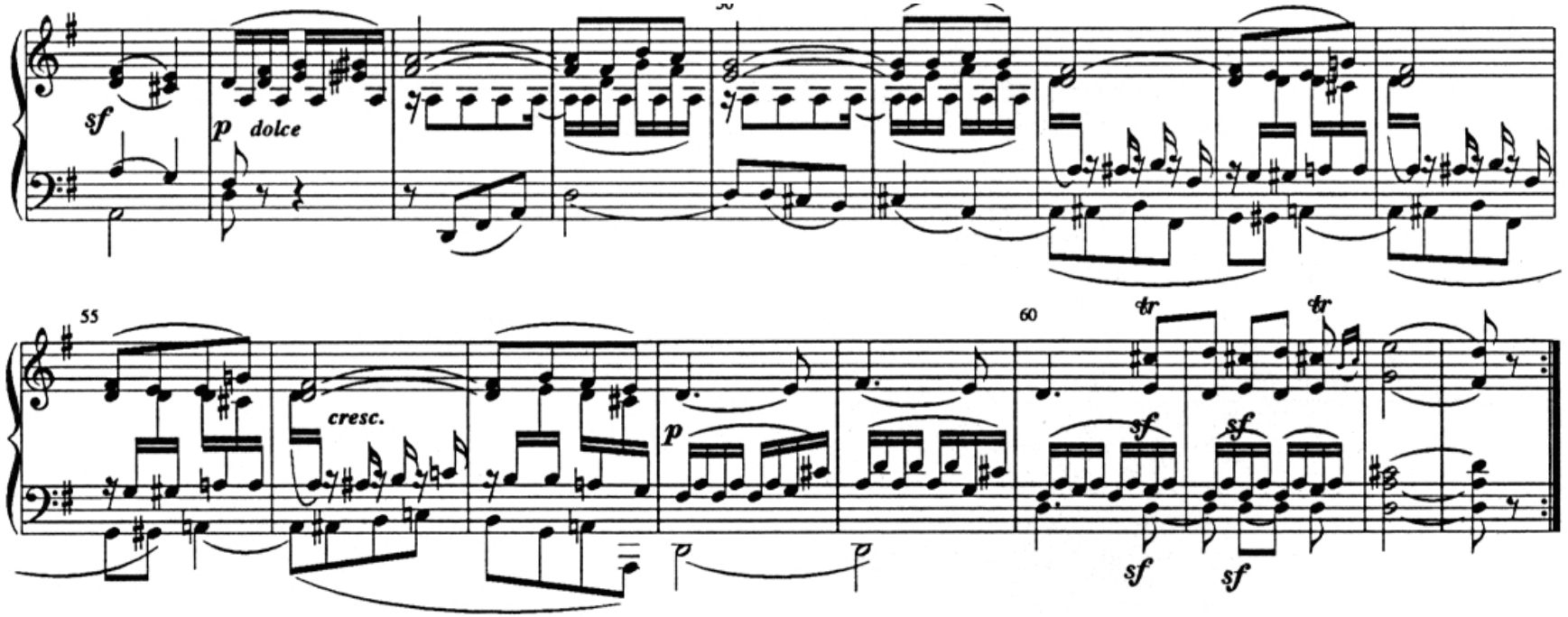
[INSERTION 2 from the original publication Chapter 1:]

Ex.1.29 interprets the closing theme of the exposition (score is on the following page). Through expansion by simple and varied repetition, vi helps to prolong (and dramatically amplify) a middleground dominant chord established in bar 51. Note that the interlocking slurs are missing for the ii returning to V in bars 53 and 57. In both cases, these pre-dominants are foreground elaborations *within* the dominant prolongation and thus are not actually part of the middleground functional progression (here, I-V-I in bars 26, 51 and 58, respectively).

EXAMPLE 1.29 Beethoven, Piano Sonata, op. 14, no. 2, I, bars 47-63



[53] Our reading of this movement is based on Schenker's analysis in *Free Composition*, Figs. 47,2 & 154,6.

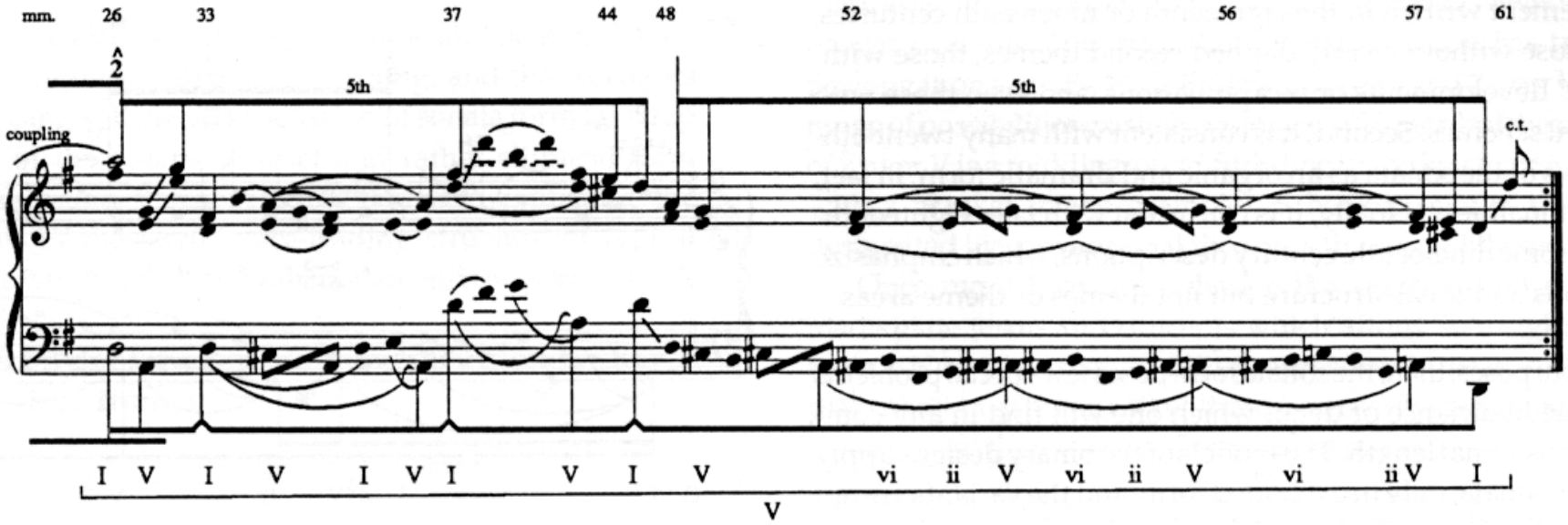


[END INSERTION 2]

[Looking again at all the parts,] the second theme and closing theme prolong the ^2 over V with the middle-ground fifth-line from ^2 : ^2-^1-^1 -^7 -^5. The second part of the exposition of op. 14, no. 2, in Ex. 8.13, in fact, shows two of these lines, the first from A5 in bars 26-44, the second from A4 in bar 48, which arises from coupling of the earlier A5.

Example 7.13/8.13:

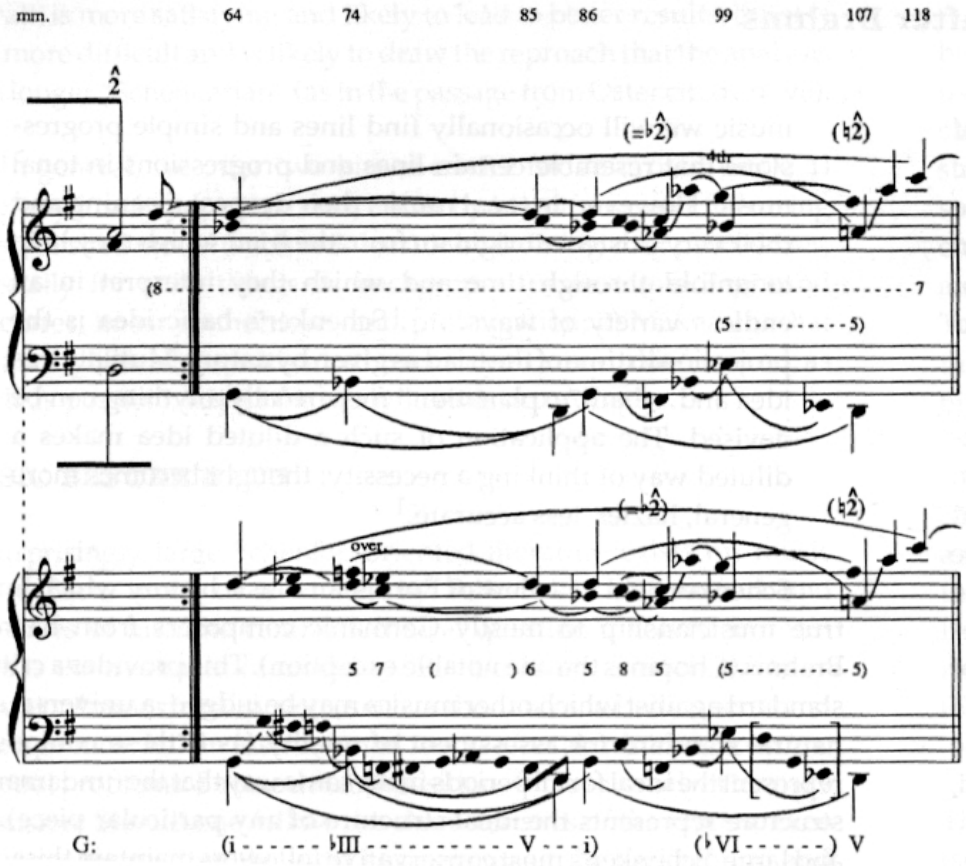
EXAMPLE 8.13 op. 14, no. 2, I, second part of the exposition



The development section continues the prolongation of ^2 over V and is usually interpreted as consisting almost entirely of foreground elaboration in the form of lines, mixture, register changes, and so on, in unpredictable arrangements. It is almost always best to begin analysis of a development section with a detailed bass-line sketch. This will establish the harmonic progressions and functional hierarchies involved and make interpretation of the upper parts much easier.

There are three examples of sonata developments in *Free Composition*, including the development of op. 14, no. 2, I (Fig. 154,6). Schenker writes: "As in the previous example [Beethoven, Symphony no. 6, I], a seventh is transferred upward ($V^{8\text{-}7}$—here, however, in a different way" (p. 137). A reading of this development is given in Ex. 8.14. This reading differs from Schenker's in a number of details, but also in including another feature (in addition to the transferred seventh) at the same level; that is, a fourth-line from the cover tone D5 downward to a recurrence of the ^2 of the interruption (as D5-C5-Bb4-A4—note that this motion produces parallel fifths with the bass).

EXAMPLE 8.14 op. 14, no. 2, I, development section



<--Example 7.14/8.14. The reprise re-establishes the fundamental line after the interruption. The descent of the fundamental line will normally occur at the end of the second-theme area, sometimes in the closing theme, rarely in a coda. Codas are in most cases to be regarded as foreground or late middleground extensions of the final tone of the fundamental line. In minor-key sonatas where the second and closing themes are recapitulated in the parallel major key, mixture is applied.

A middleground reading of the entire first movement of op. 14, no. 2, appears in Ex. 8.15 showing, among other things, how the second theme's fifth-line (shown in brackets) is treated in the exposition and recapitulation. When the fundamental line is from ^3, the fifth-line in the recapitulation must be split into two thirds—in bars 152 ff., D5-C5-B4 and B4-A4-G4. With the line from ^5, this problem does not arise. [54]

Example 7.15/8.15.

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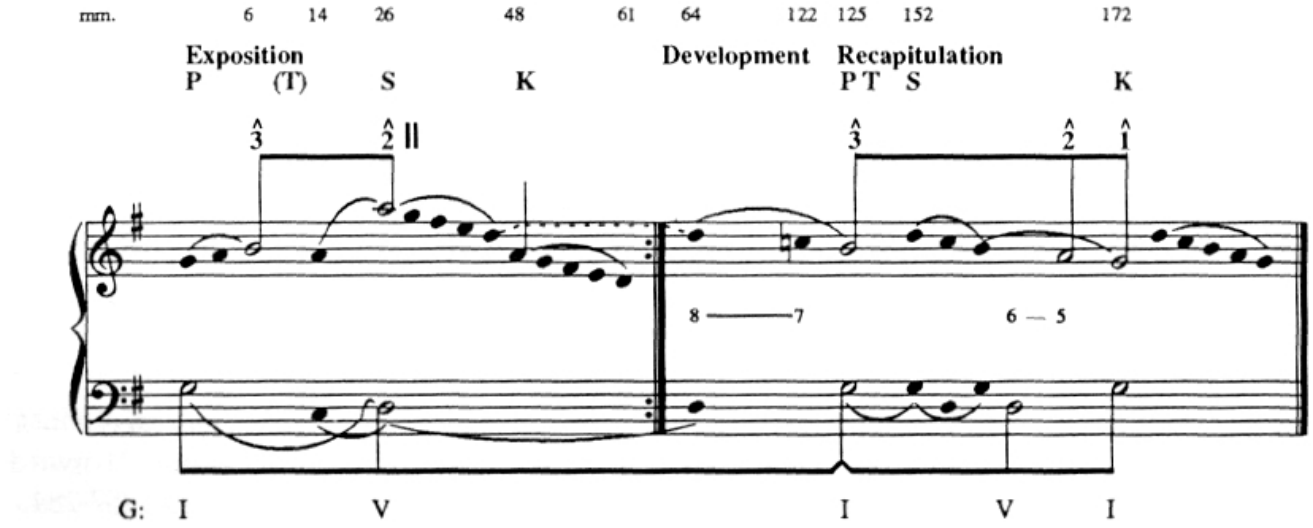
[54] Readings: Schenker's discussion of sonata form begins on p. 133 of *Free Composition*. The translator, Ernst Oster, has added an extended, very useful footnote on anomalous sonata designs, pp. 139-141. An earlier essay from *Meisterwerk*, vol. 2, "Organic Structure in Sonata Form," appears translated in Maury Yeston, ed., *Readings in Schenker Analysis...*, p. 38.

Other examples: In *Five Graphic Music Analyses*: Haydn (development section only). In Forte and Gilbert: Chapter 21 (three extended examples, two from Haydn, one from Beethoven). In *Structural Hearing*: Fig. 497 (Schubert; extended minor-key example); also, 475 (Mozart; rounded binary design indistinguishable from a compact sonata movement; the same piece is discussed as "sonatina form" in Forte and Gilbert, pp. 213 ff.).

EXAMPLE 8.15 op. 14, no. 2, I, entire movement



BIBLIOGRAPHICAL NOTE

The essential reference text for Schenkerian literature is David Carson Berry, *A Topical Guide to Schenkerian Literature: An Annotated Bibliography with Indices* (Hillsdale, NY: Pendragon Press, 2004). Another useful resource is Benjamin Ayotte, *Heinrich Schenker: A Research and Information Guide* (Routledge Music Bibliographies, 2003).

Basic texts referred to in the main text and footnotes:

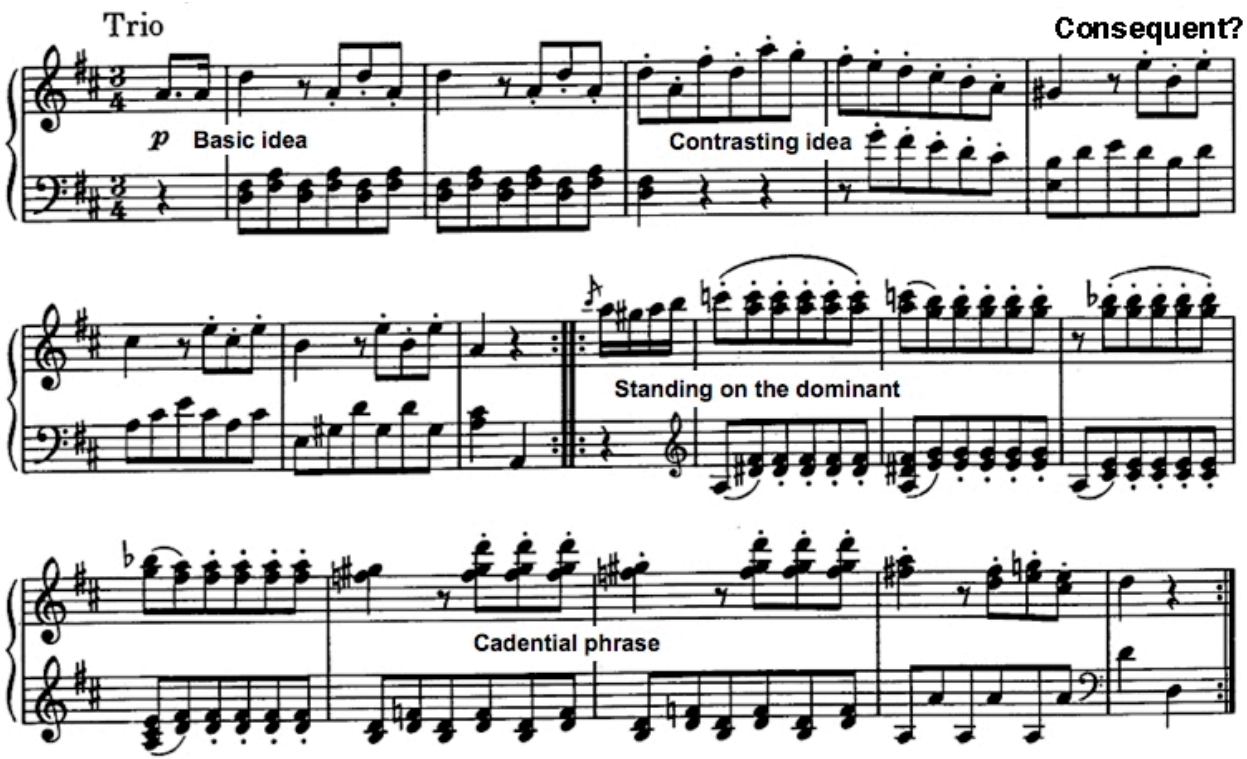
1. Heinrich Schenker, *Free Composition*, ed. and trans. Ernst Oster, 2 vols. (New York 1979). Original German edition 1935.
   The fullest expression of Schenker's theories and the fundamental reference source for Schenkerian analysis.
2. _____, *Five Graphic Music Analyses* (New York 1969).
   The clearest models for complete sets of analytic graphs are to be found here.
3. Allen Forte and Steven Gilbert, *Introduction to Schenkerian Analysis* (New York 1983).
   With Salzer's *Structural Hearing,* this is the standard reference for pedagogical purposes, but it is also a complex book due to an attempt to combine traditional teaching of form genres with the study of Schenkerian analysis. Its strongest point is the careful introduction to foreground techniques in the first six chapters. Its weakest point is its reductive approach, which slights the early structural levels (that is, background and middleground) and the composing-out process.
4. Felix Salzer, *Structural Hearing,* 2 vols. (New York 1952; repr. ed. 1962).
   For many years the only textbook readily available to English readers, this is still excellent, though it is made difficult to use by the separation of text and musical examples into two volumes. Its strongest point is its clear presentation of concepts. The extension of Schenker's method to include music outside "Bach-to-Brahms" remains uniquely interesting. On the debit side, there is too much emphasis on harmonic aspects, and several writers have challenged some analyses as doubtful.

APPENDIX 1: MUSIC FOR STUDY (FROM BEETHOVEN, WOO7 & 8)

The examples in this section are intended to supplement Chapters 1 & 6, to provide focused, small exercises in locating figures and constructing analytical sketches. The repertoire was selected from Beethoven, Menuets, WoO7, and German Dances, WoO8 (1795), two of whose numbers we already encountered in the Chapters 2 & 3 segment.

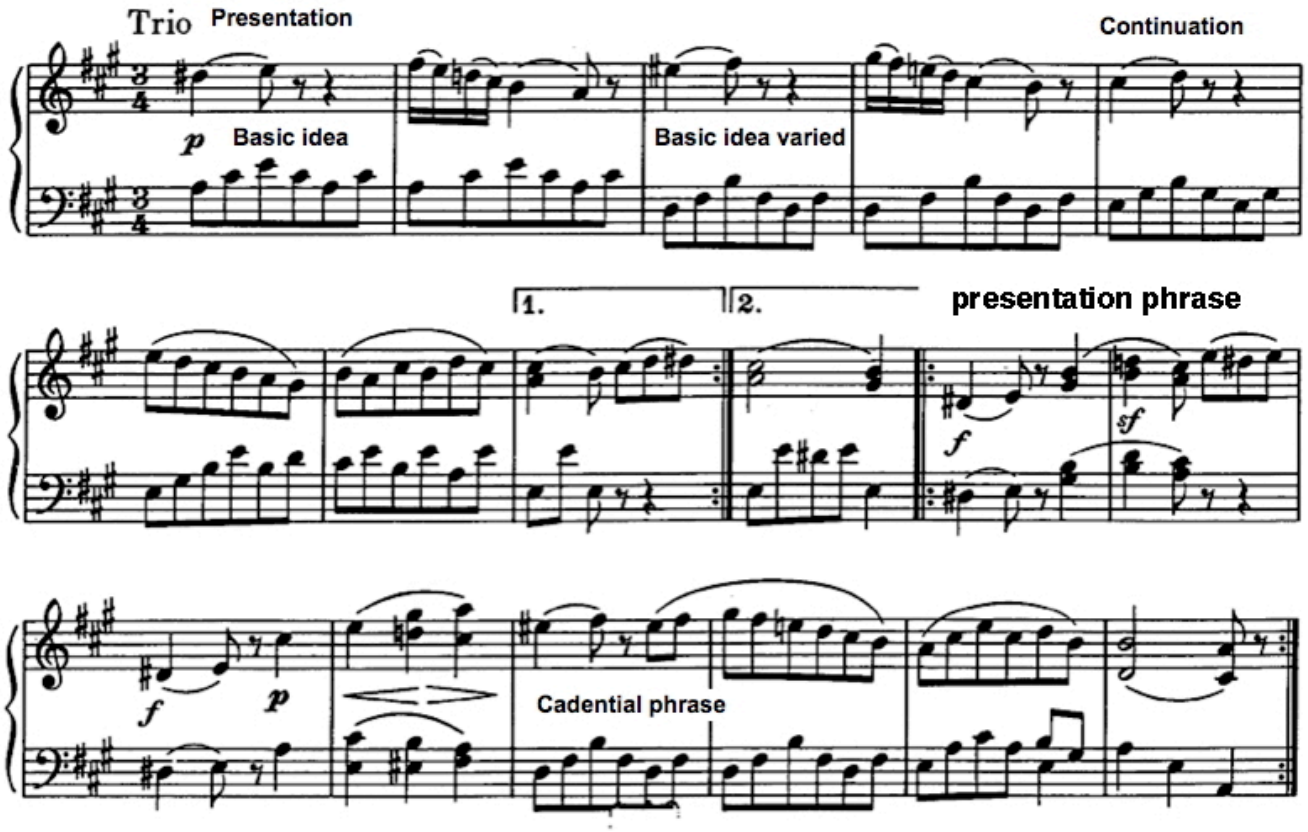
BASS-LINE SKETCH: SCORES

WoO7n1, trio. Make a bass-line sketch. It will have just one open-note I-V-I group (the tonic of bar 12 is still over a dominant bass).[55] There is no bass in bars 3 & 4 after the first beat of bar 3.



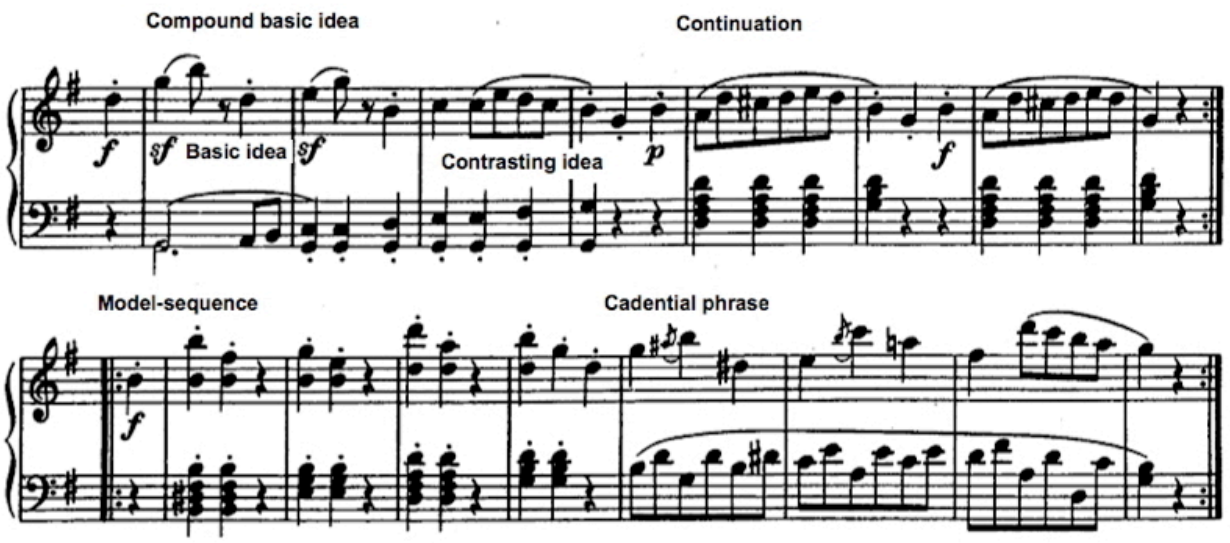
[55] Actually we can hear it either way. What is the difference? If we hear bar 12 over V, the harmonic tension is sustained all the way across section B, into the final cadence. If we hear the tonic in bar 12, then the design of the harmony fits neatly with the form (remembering that 8-bar sections and 4-bar units are fundamental to the later eighteenth century menuet).

WoO7n6, trio. Bass-line sketch. In section A, bar 7 is a tonic chord; use unfolding from C# to A. Read bars 9-12 over the dominant.[56] Bar 12 uses the deceptive cadence (see chapter 1). In bar 15, a cadential dominant figure.

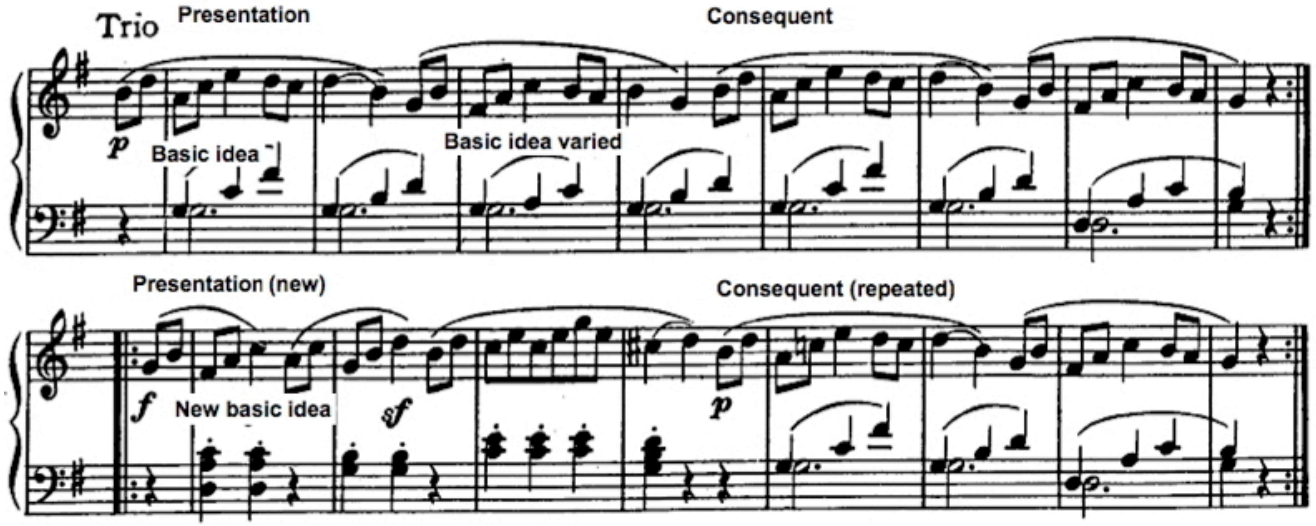


[56] Like the preceding example, bars 9-12 here could be read as reaching I (in bar 10 and again in bar 11, beat 3), but here the sense of tension is considerably stronger and extending (prolonging) V fits the character of the music better.

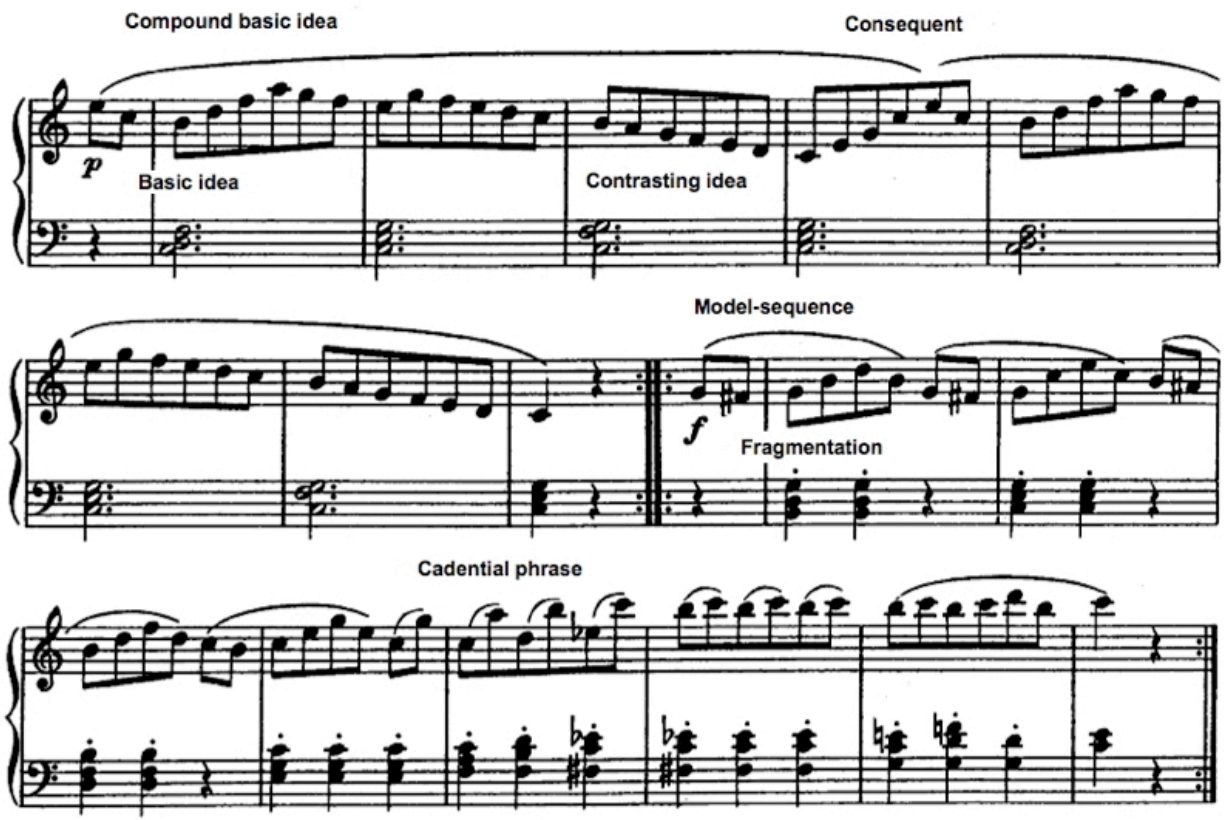
WoO8n6. Bass-line sketch. In bars 12 and following, you can either write out unfoldings (B3-G3, etc.), or ignore the upper voice and just show the lower one (G3 in bar 12, etc.).



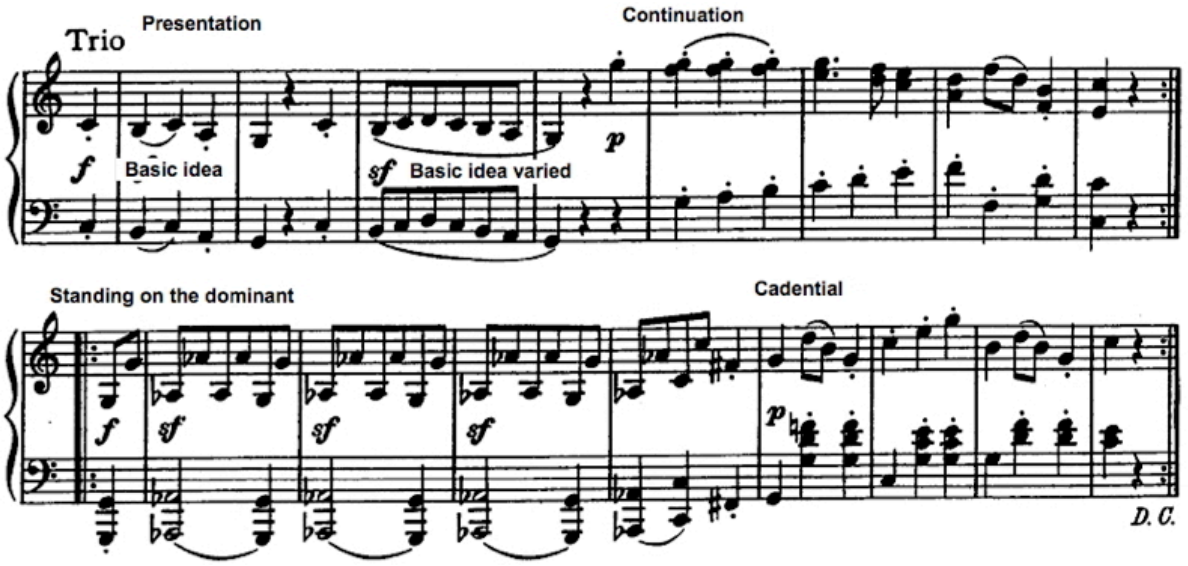
WoO8n6, trio. Bass-line sketch. Notation of the I-V-I groups follows the form: the open-note group covers the whole piece (choose bar 1 and the cadence in bars 15-16); the main closed-note group covers section A; a lower-level group includes bars 9-10.



WoO8n7. Bass-line sketch. This exercise is all about notating the foreground of section B. Refer to the sections "Expansion of the Harmonic Cycle through Inversions" and "Filling-in of Harmonic Intervals in Functional Patterns" in Chapter 1. As you will recall from those sections, there are options; what you choose depends on how you hear the bass in bars 12-13.



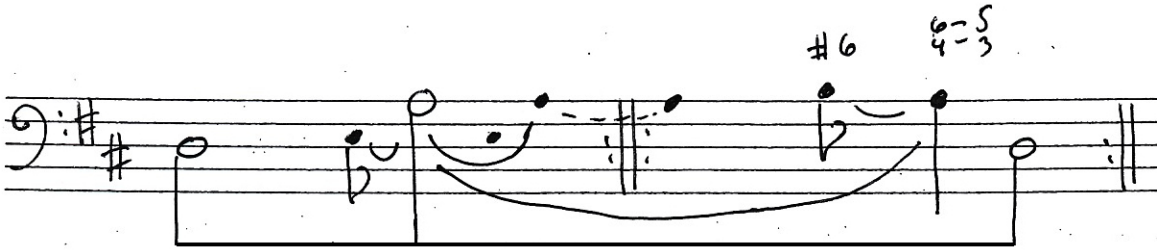
WoO8n7, trio. Bass-line sketch. A much more active bass this time.



(BASS-LINE SKETCH ANSWERS BEGIN ON THE FOLLOWING PAGE)

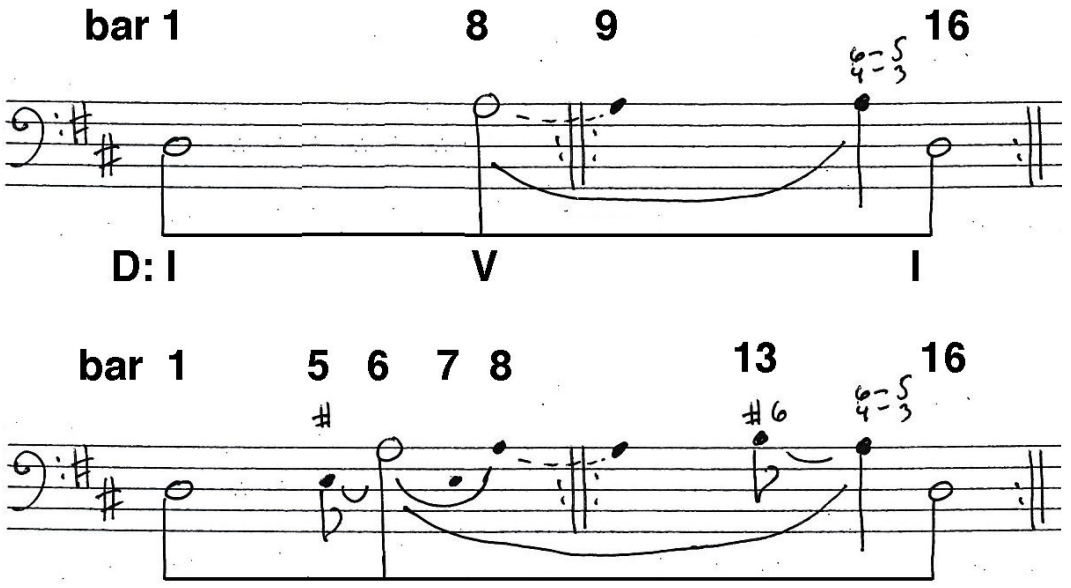
BASS-LINE SKETCH: ANSWERS FOR THE SIX PIECES ABOVE

WoO7n1, trio.

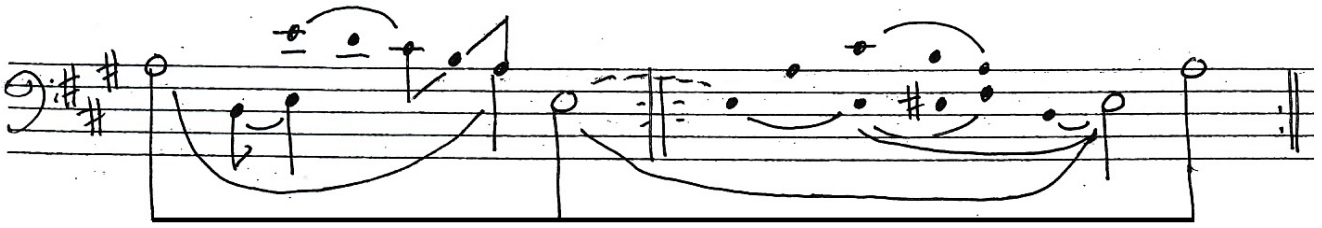


The dotted slur between the two sections is used (informally) to show or emphasize simple recurrence. It's used again in the next sketch below. The figured bass symbols are also informal, though the cadential dominant notation is quite common. We put in the #6 simply to bring attention to the chromaticism at that moment.

In this graphic, we've shown the initial matching of form to open-note I-V-I patterns and the final version derived from it. It's the A section that is of interest. The first choice for open-note V is bar 8, but looking more closely, one sees that the dominant key is already expressed in bar 5 and for that reason I've moved the open note back to bar 6, with the cadence subordinate to it.

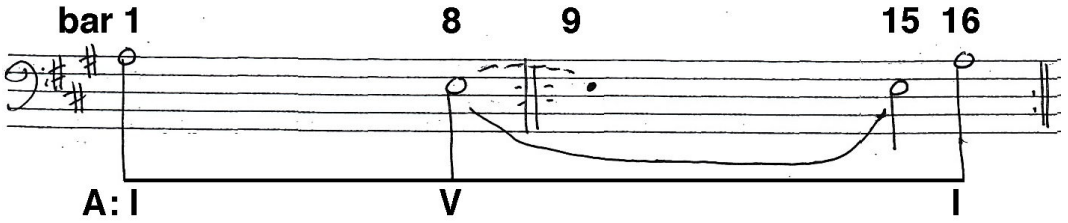


WoO7n6, trio.

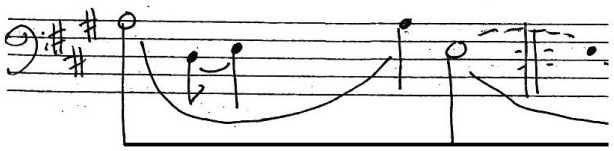


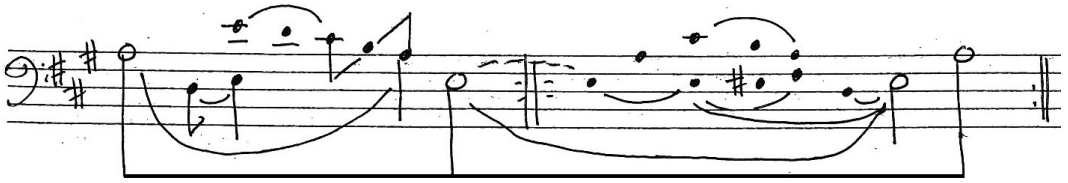
The unfolding here is not only common (I6 to I) but helps to separate and define the two voices (bass and tenor). Note the deceptive cadence/deceptive progression in section B.

The initial matching of form and harmonic design is like that of WoO7n1, trio, above, but we have added an open E3 in bar 15 to help frame the longish dominant prolongation more clearly. It's subordinate to E3 in bar 8 and so not connected to the beam.

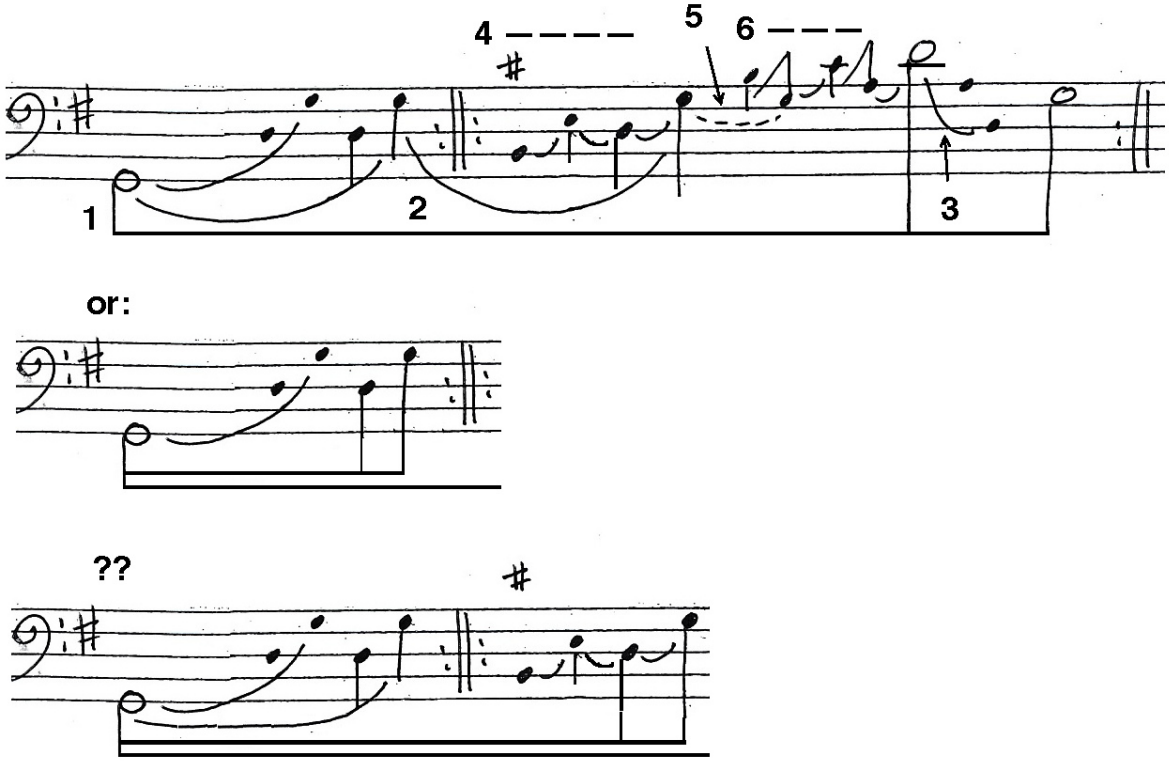


The middle system shows the frame of bars 1-7: a I-V-I figure with a subdominant. The final graph, repeated, fills out the bass. Note that in the tonic area of the A section and the dominant area of the B section the bass has elements of a second, upper or "tenor" voice that needed to be separated out from the proper bass.





WoO8n6.

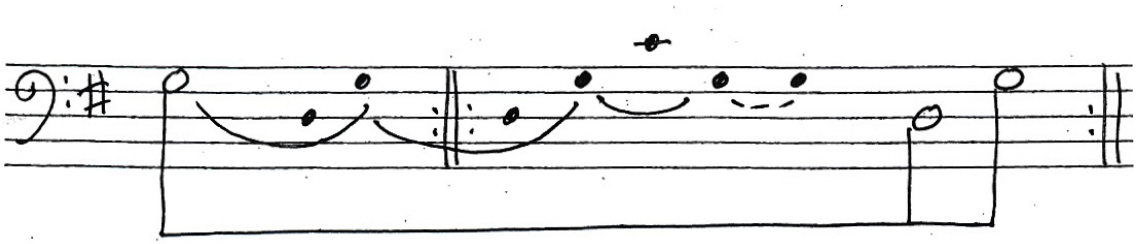


Three levels of I-V-I out of the first tonic note. "or:" shows an alternative notation using a beam for the I-V-I in bars 1-8. "??" gives priority to I-V-I in bars 1-12; we wouldn't pick that normally because of it contradicts the hierarchies of the form.[57] Note that unfolding is used for a pair of thirds.

A common exercise is to explain all elements of the notation in a sketch. Here: (1) beamed open-note group with two subordinate I-V-I slurred groups; one has stems; the other doesn't. (2) the slur shows another I-V-I group "chained" to the tonic that ends the A section. (3) arpeggiated figure from open-note D: foreground, no stems. (4) elaboration within the I-V-I group of bars 8-12; sequence B2-E3, D3-G3 with a slur for each pair; short stem for E3 as a subdominant type, slurred to its dominant D3 (5) broken slur for recurrence (just connects a note and its repetition without implying anything particular about embellishment. (6) unfolded thirds.

[57] The exception would be if matching the upper parts to the bass required rethinking hierarchies of the bass figures.

WoO8n6, trio.



As we did in the previous sketch above, we have chained the I-V-I group covering bars 1-8 in section A to the one overlapping into section B. Because the first I-V-I frames section A, it is formally superior to the one in bars 8 and following. We could have made the distinction more obvious by putting stems on D and G in bars 7-8.

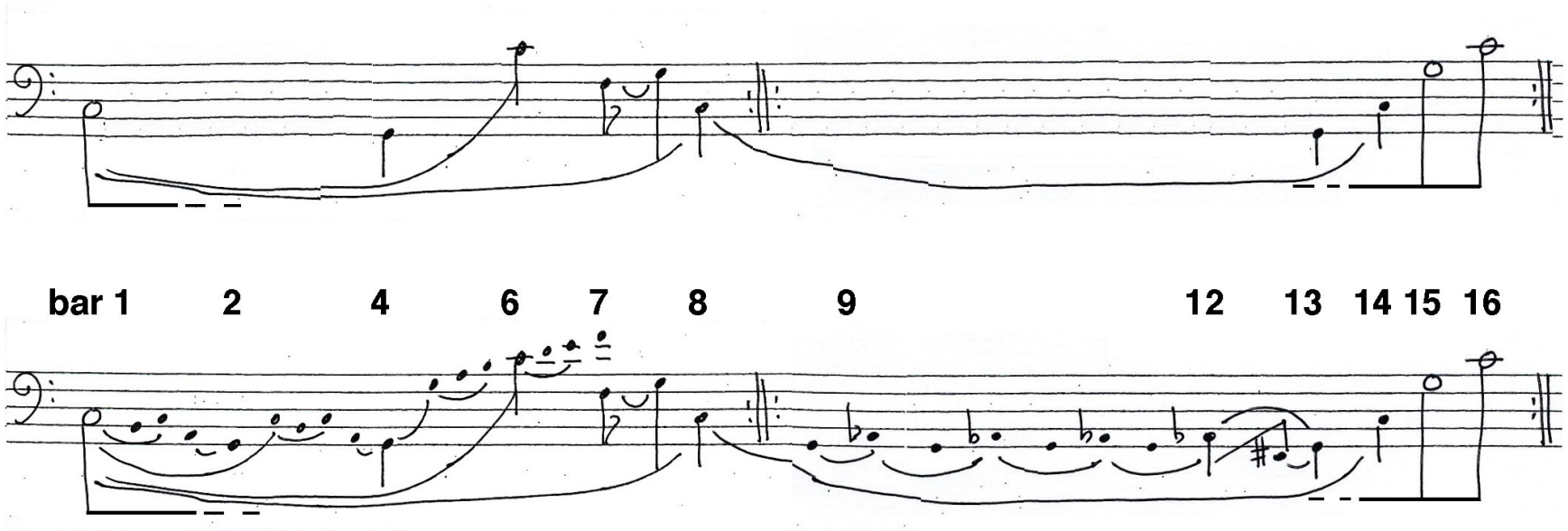
WoO8n7.

All the activity in section A is above the bass C3; we will need it for the analysis of all the parts but can safely leave it out of the bass-line sketch.

In section B, a line fills the space from C3 to G3. We could have made this a triad arpeggiation (C3-E3-G3), but instead have
divided it into a third followed by the sub-dominant function. There really is no argument about it here, as so much attention is given to IV and the diminished chord above the passing F#3.

WoO8n7, trio.

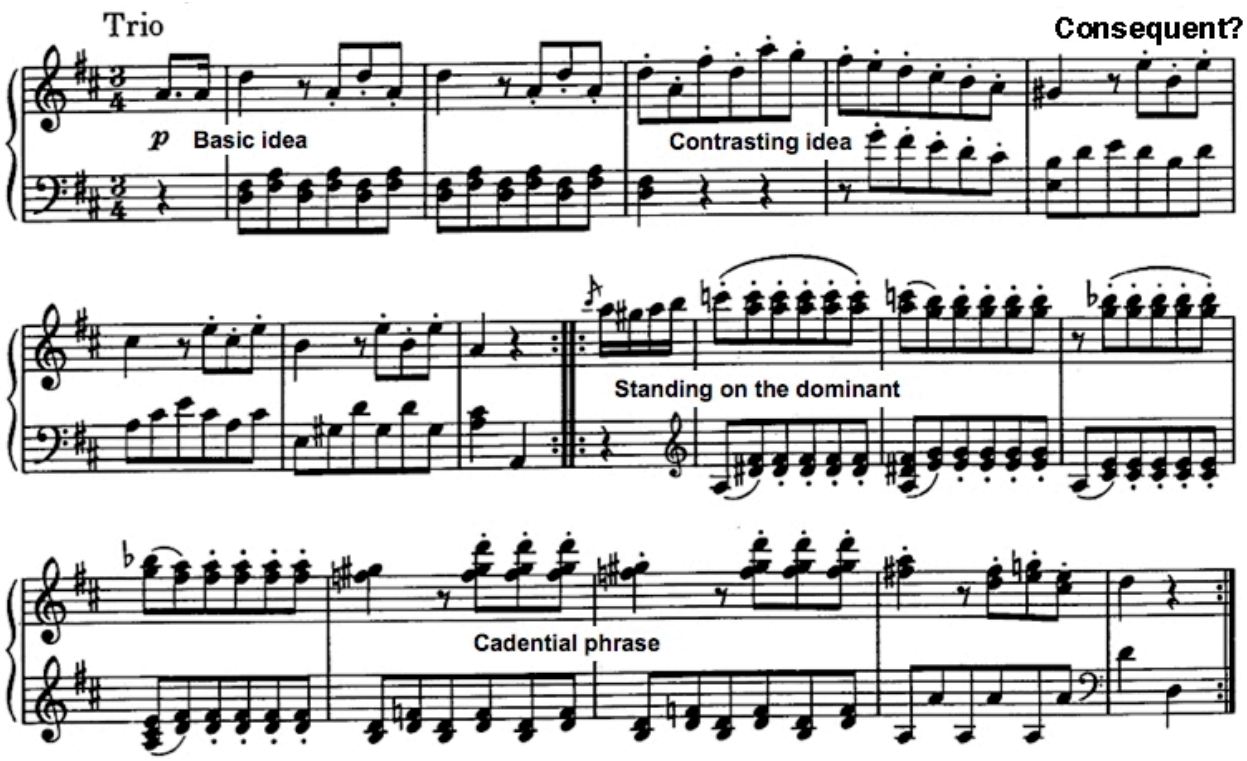
The most complex—at least, most detailed—of the six basses. In section A, C3 prevails in the opening despite its position on weak beats of the bar (work out a version with V in bars 1-5—make it an open note but not connected to a beam—and the first open-note tonic in bar 6; see what you think).



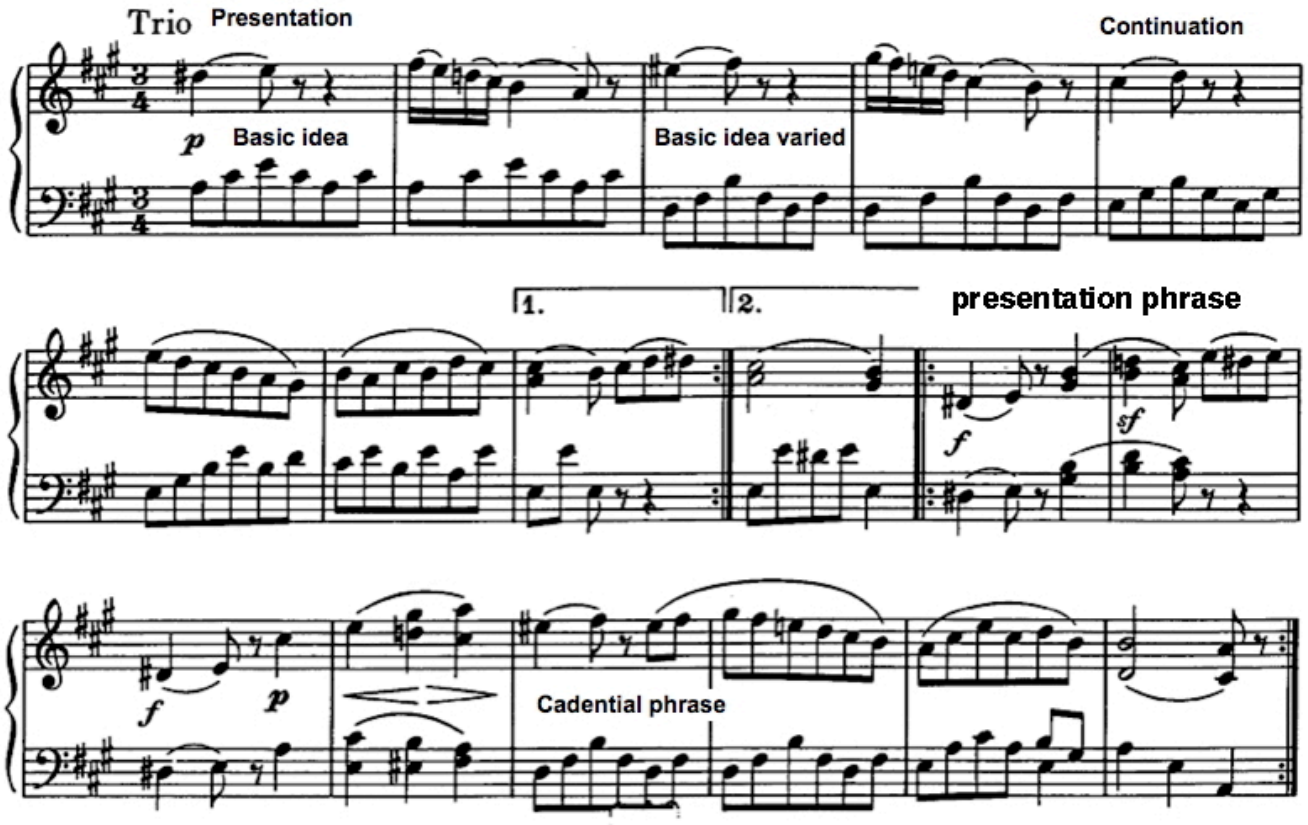
ANALYSES OF ALL PARTS FOR THE SIX PIECES ABOVE

These are the same pieces as in the bass analysis section above; repeated here for convenience.

WoO7n1, trio. Sketch of all parts. Background (open) notes are ^3 (F#5) in bar 3—^2 (E5) in bars 5-7—^2 (E5) in bar 15 and ^1 (D5) in bar 16. Bars 9-15 expand the dominant, and the upper voices should be treated as boundary play around a cover tone A5 (in bar 12).

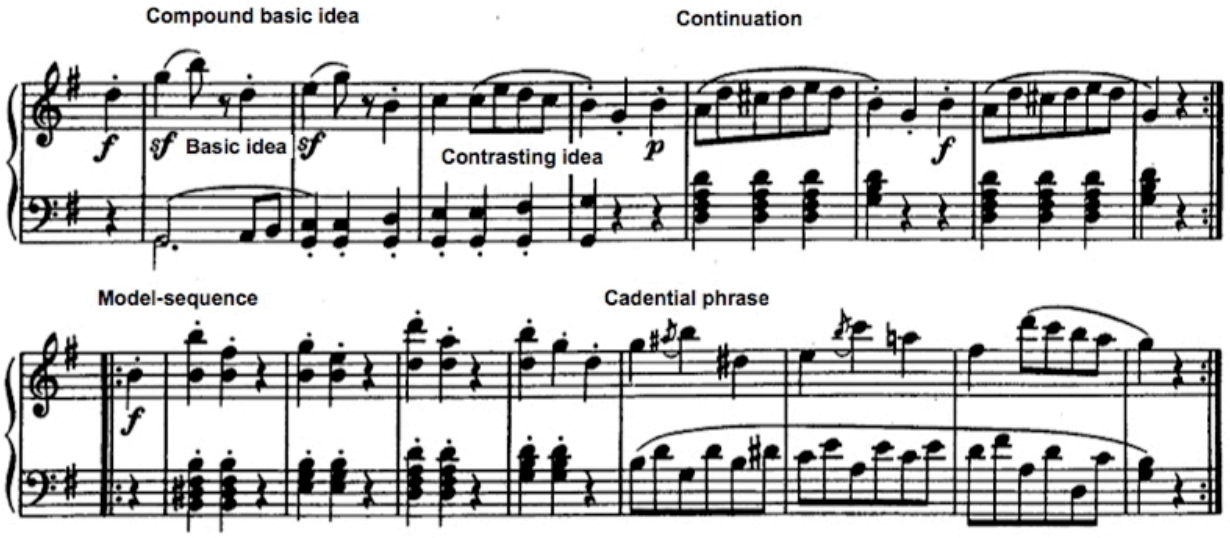


WoO7n6, trio. Sketch of all parts. Read from ^5 (in bar 1). If you hear the tonic returning at bar 10, beat 2, then there is an interruption at bar 8. If you hear the dominant prevailing through almost all of the B section (as in the previous analysis), then the line down from ^5 to ^2 covering the A section is a middleground event, ^5 is still "implied" in bar 8, and the background descent occurs in bars 14-16.



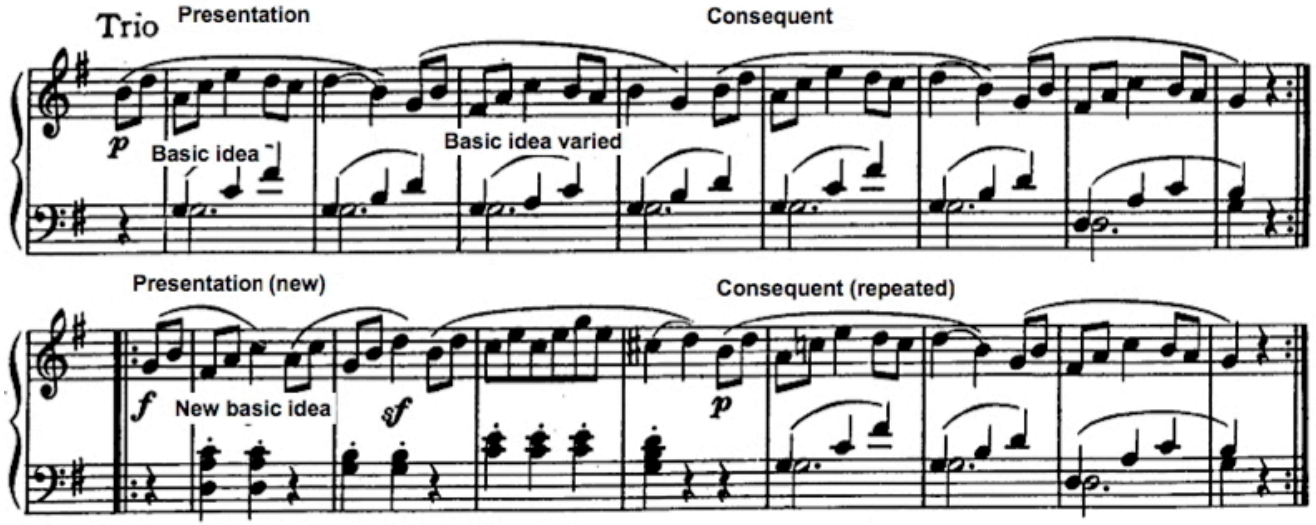
WoO8n6. Sketch of all parts.

Reading from ^5 (D5) will be easiest, with an ascent to ^8in bars 13-16, or D5-(D#5)-E5-F#5-G5. The alternative will require reading from ^3, as B4 in the A section and B5 in the B section.



WoO8n6, trio. Sketch of all parts.

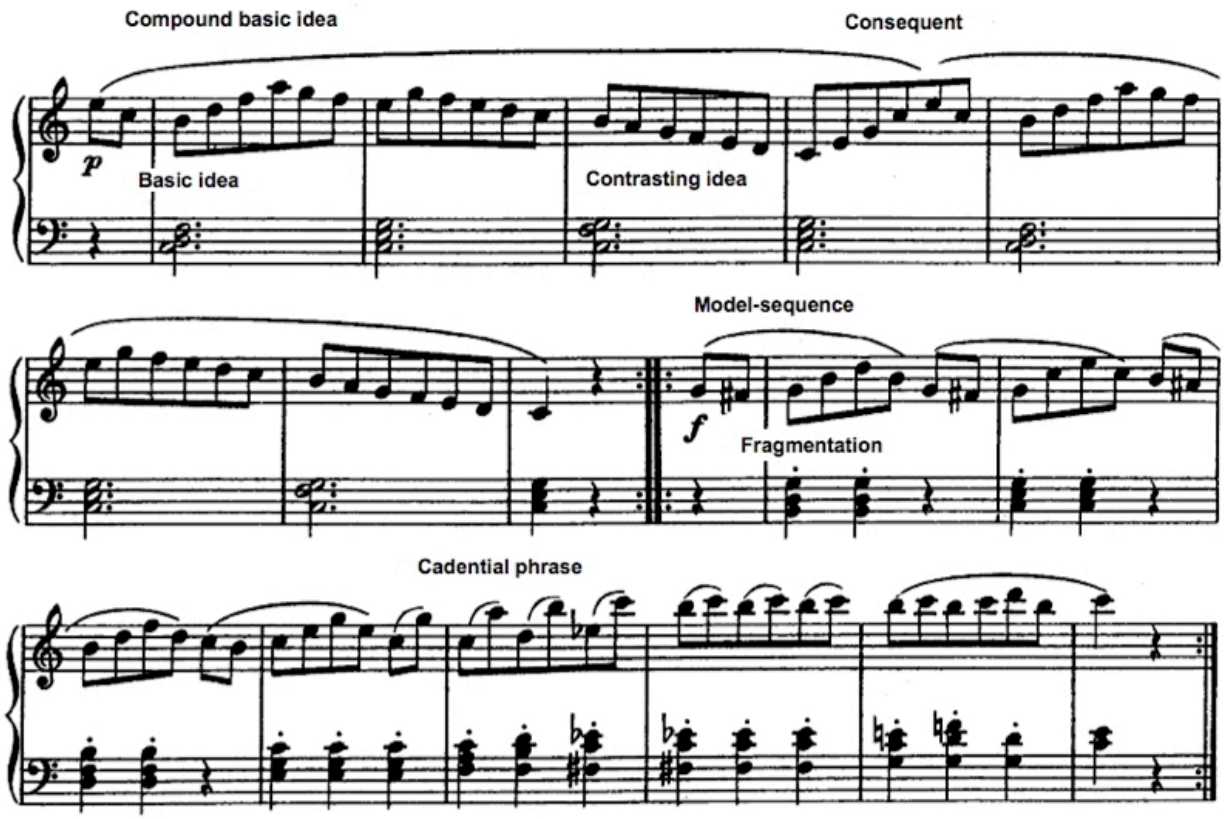
This could be peppered with unfoldings, but it is clearer to "collapse" them into vertical intervals, as with B4-D5 at the beginning, etc. The background begins with ^5 and runs quickly down in bars 15-16 (with a middleground parallel in bars 7-8, of course).



WoO8n7. Sketch of all parts.

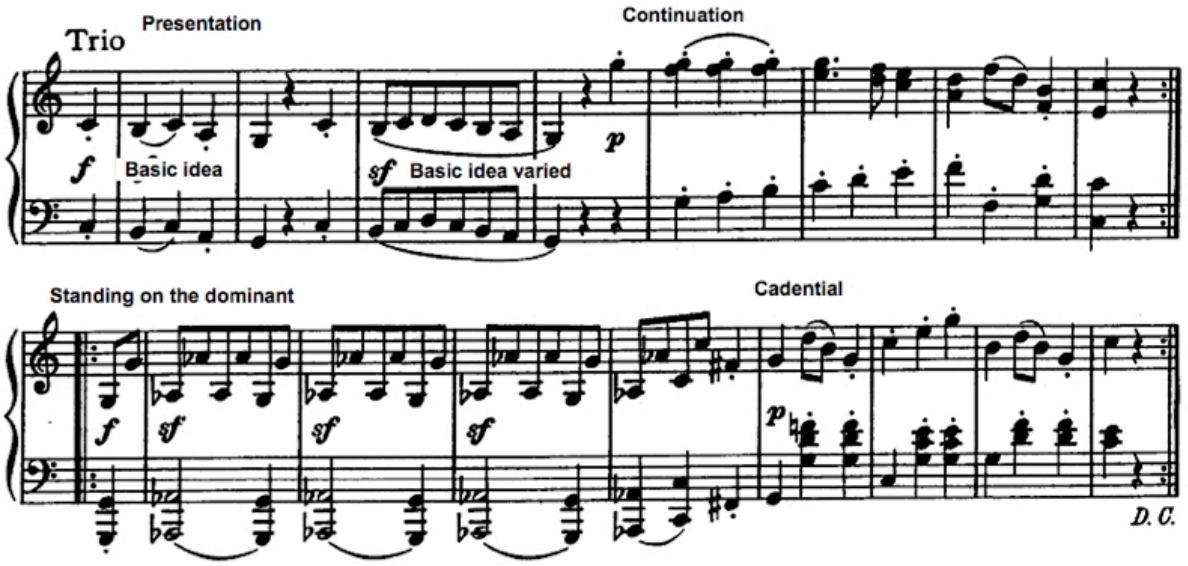
Here unfoldings *are* a good idea. Start with E5-C5 in the pickup beat, then B4-F5 in bar 1, and E5-C5 in bar 2. After that lower voices B4-D4 in bar 3 and C4-C5 in bar 4.

In the answer section below, we have opted to read the background from ^3 with implied descent in bars 15-16. You could also read an *Urlinie* from ^5, though that is more difficult because it is hard to find a place above the harmony for ^4. Alternatively, you can more easily read from ^5 with an ascending line, as we did in WoO8n6 above.



WoO8n7, trio. Sketch of all parts.

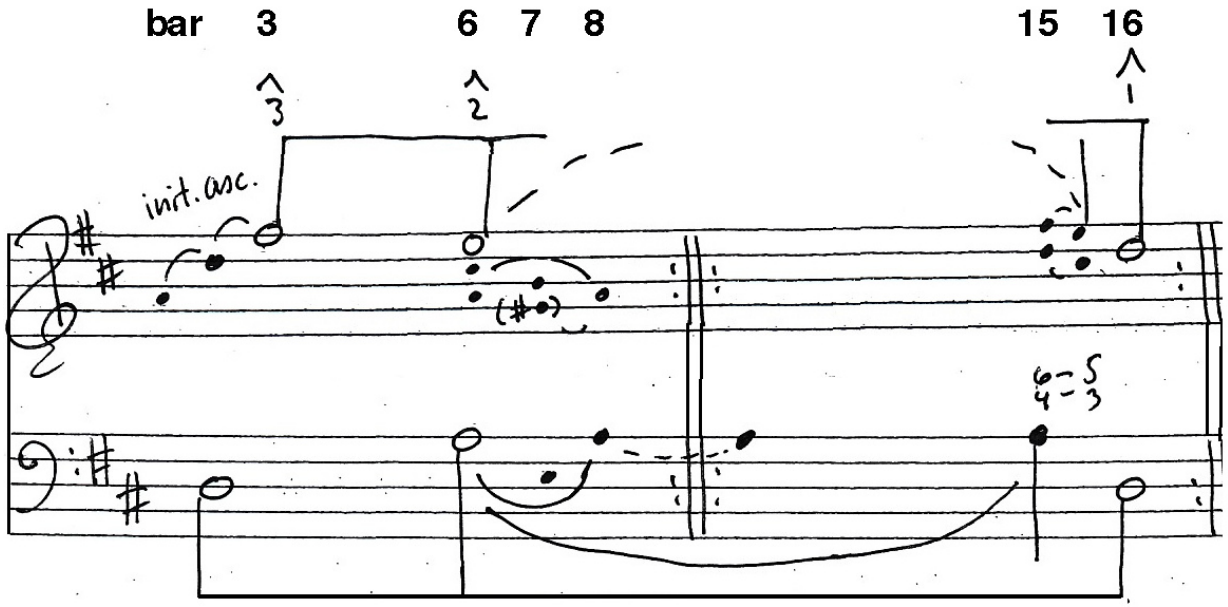
Following from the bass-line sketch, we hear tonic, not dominant, in bars 1 & 3, but C4 is isolated as a middleground note. The first *Urlinie* note is G5 in the second phrase. In bar 13, ^4 (as F5) needs to be implied but the rest of the descent is clear.



(ANSWERS FOR SKETCHES OF ALL PARTS BEGIN ON THE FOLLOWING PAGE)

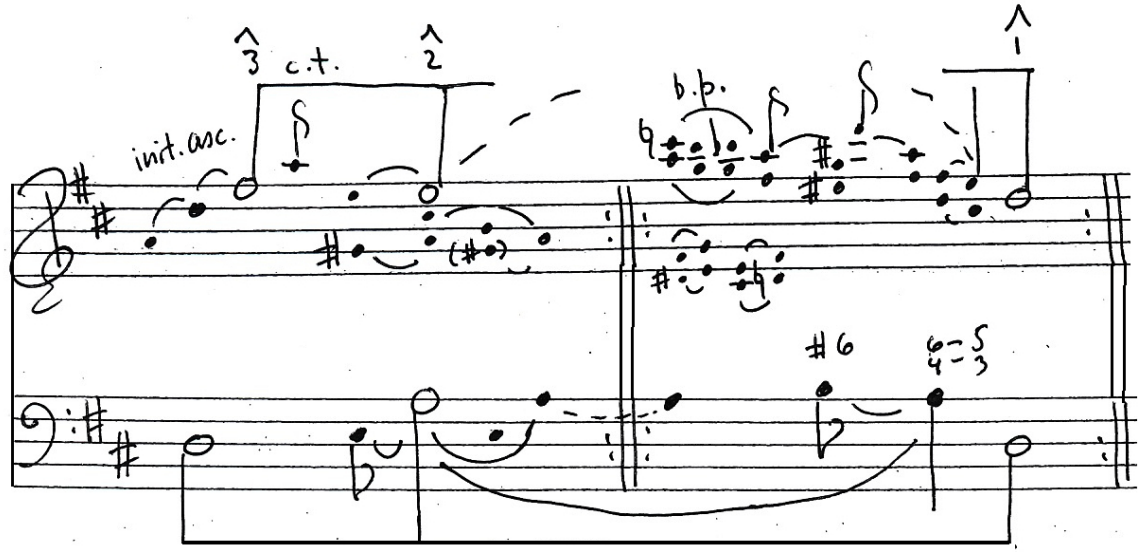
ANALYSES OF ALL PARTS: ANSWERS FOR THE SIX PIECES ABOVE

WoO7n1, trio.



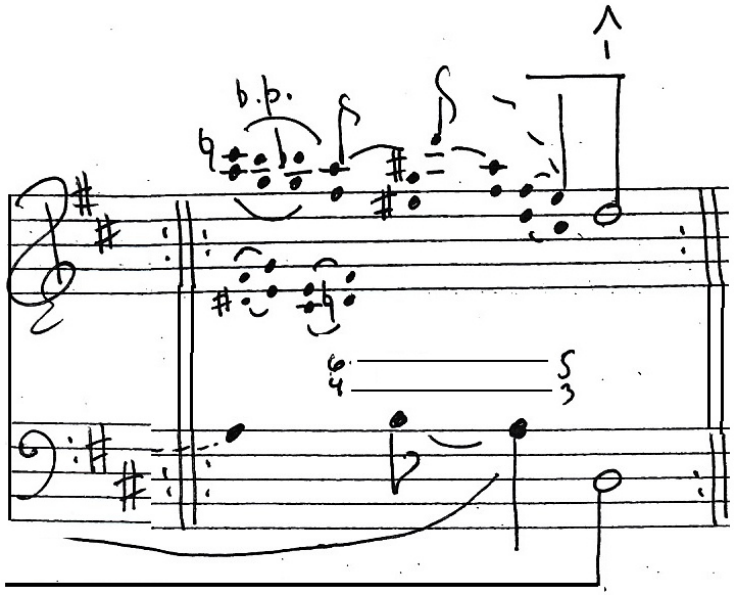
Using the method described in Chapter 4, we have matched the main upper-voice notes to the main notes from the bass sketch we worked out earlier. Because of the arpeggiation we could have chosen any of four notes—A4, D5, F#5, A5—to pair with the open-note bass D3. We had to look ahead in order to make a decision. Neither A4 nor D5 work because they are lower than the later figures. A5 would appear to be a good choice (because A4-A5 is the frame of the arpeggio), but there is no possible way to find a ^4 to bring the line down into the final cadence. Thus, the default ^3 wins out, with the opening arpeggio forming an initial ascent. As it happens, this isn't a bad choice, as there is a clearly defined (and repeated) ^2 in bars 5-7.

In a sketch at this level, one doesn't have to include inner voices. We have done so in bars 6-8 because the lower third-line C#5-B4-A4 matches the closed note group already present in the bass-line sketch. In bars 15-16 the lower voice expresses the 4-3 of the cadential dominant figure.

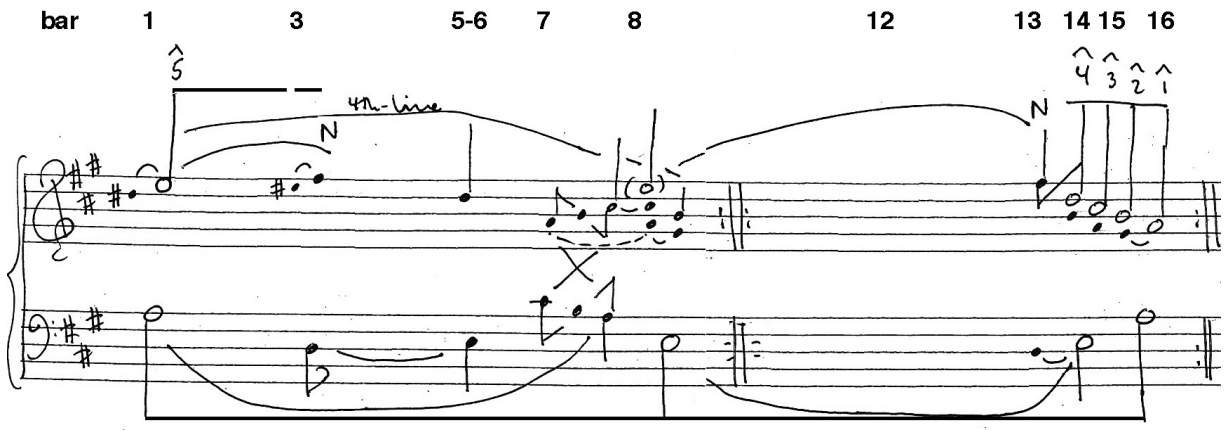


Here is the final version, built up from the complete bass-line sketch. At the beginning A5 is now identified as a cover tone (flagged note with "c.t."). A preliminary "^2- before the ^2" sits over the secondary dominant (V of V).

In the B section, the upper voices are read with priority to the bass's V, so the focus is on boundary play ("b.p.") around the cover tone A5, the one prominent note. We might have even read much of the B section as expanding a cadential dominant figure—see the partial sketch at the right. In the main sketch above, also note the broken slur for E5 and its recurrence in bar 15: this matches the closed slur A3-A3 over the same distance. Why are they different? In the bass, there is significant activity between the two A's; in the upper voices most of what we hear is boundary play and cover tones, which do not have to be tied into or explained by the main melody. In other words, we chose to emphasize that quality of the B section. If we had made more of the expanded cadential dominant, as in the partial sketch, then we might have closed the upper voice slur to help bring out F#5 as neighbor note (E5 in bars 5 ff.-F#5 in the opening of the B section-E5 in the cadence).

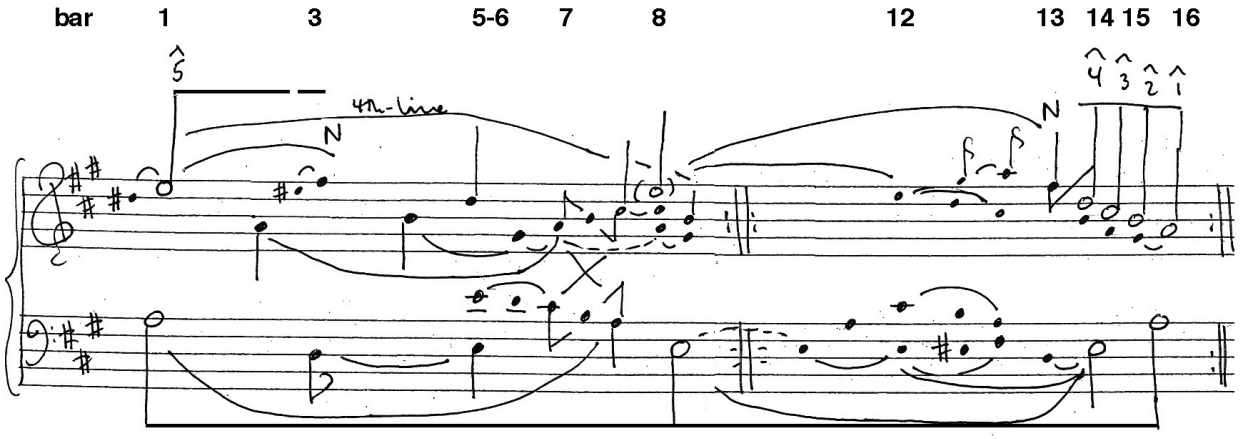


WoO7n6, trio.



Here again we have simplified the bass-line sketch somewhat in order to show the "matching" process of bass and upper parts more clearly.

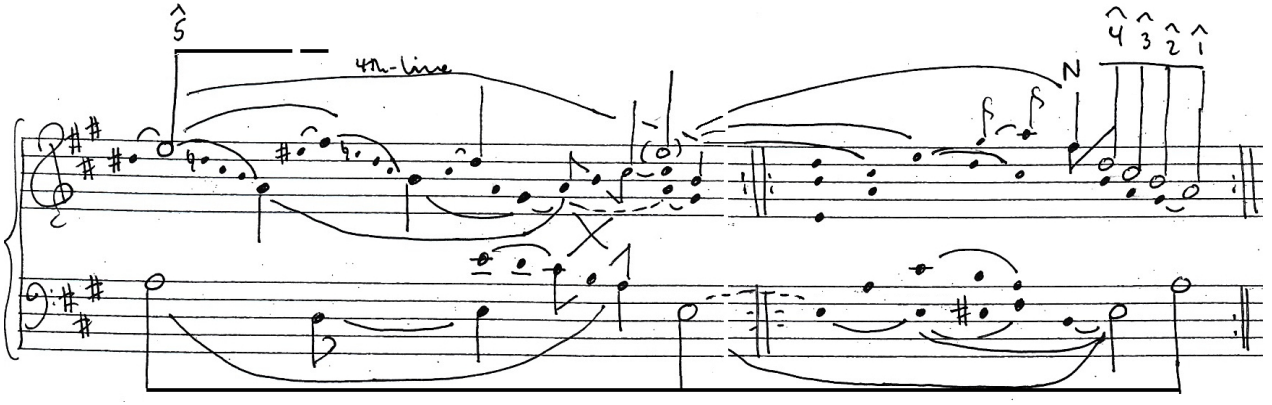
The first open note, ^5 (as E5) seems obvious, but we do have to confirm it by looking into the B section for possible descending lines. As it happens, the descent is very plain and tied tightly to the underlying harmonic progression of the cadence, and so we can feel confident that the *Urlinie* runs from ^5. The only complication is that ^5 is not present in bar 8, when the open-note V arrives in the bass. Instead, it is shown as an implied note, one we expect to be there from context but which is not in fact sounded. What we do hear over the course of the A section is a fourth line that runs below the E5—such lines are referred to "motion to an inner voice."



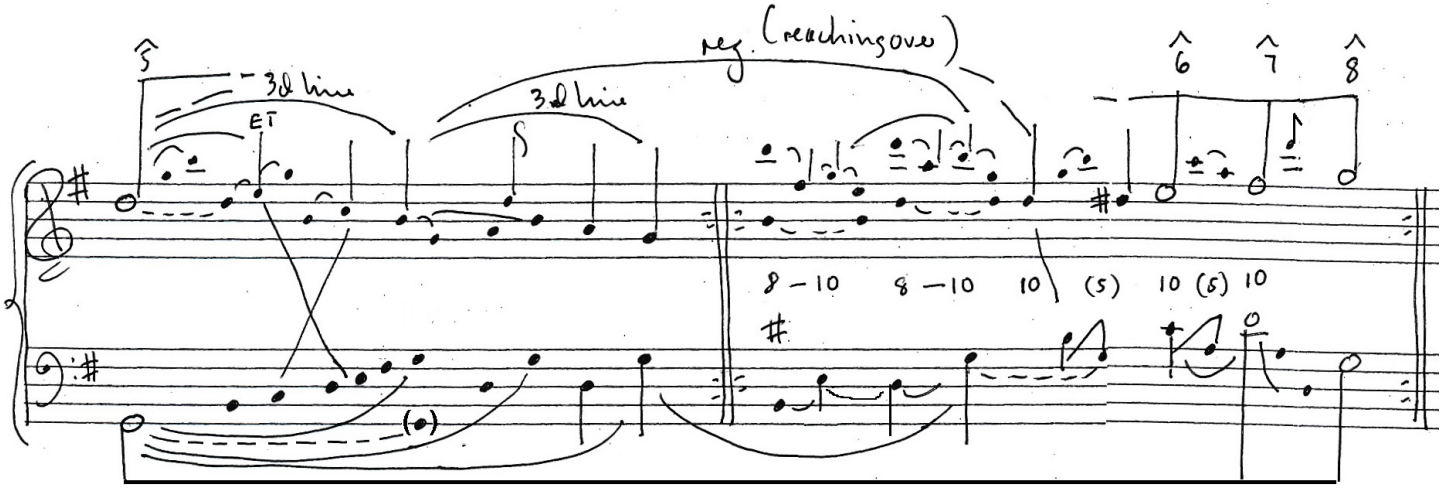
We have included two more detailed graphs. The first one -- at the right -- adds the inner voice that consistently runs across the A section. It also adds the bass for the opening of the B section and provides matching upper voices. Note that E5 *is* sounded here and a second, shorter and foregrounded line follows from it in bar 12.

The second detailed graph, at

right, adds still more foreground material in the A section and beginning of the B section, thereby coming closer yet to all the materials of the score.

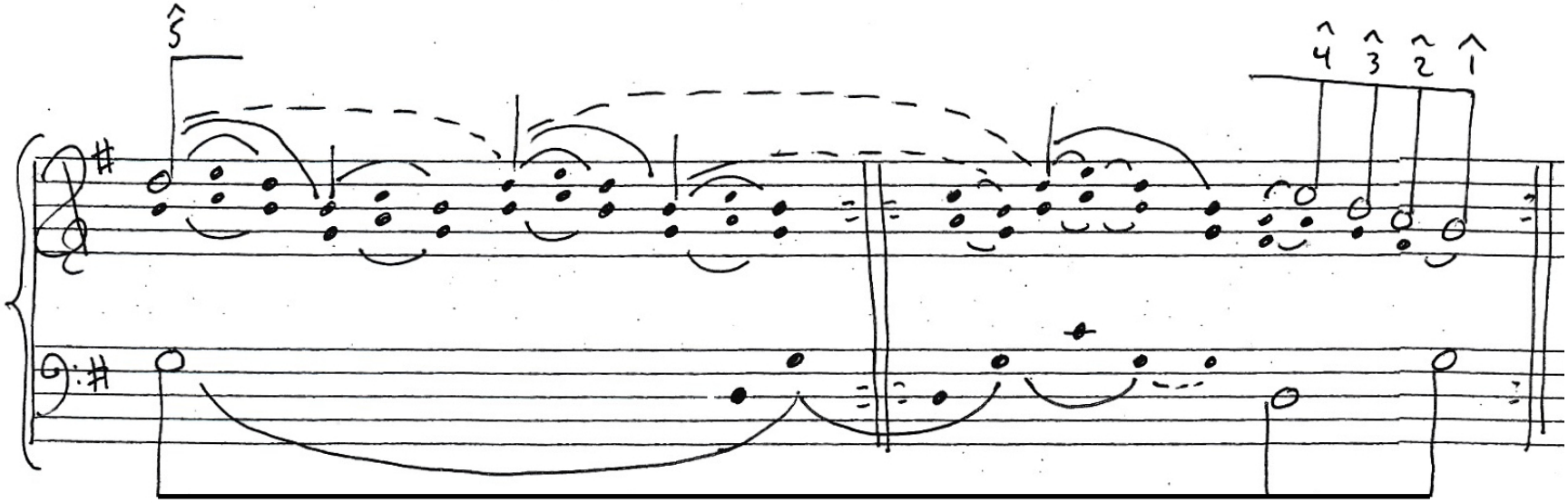


WoO8n6.



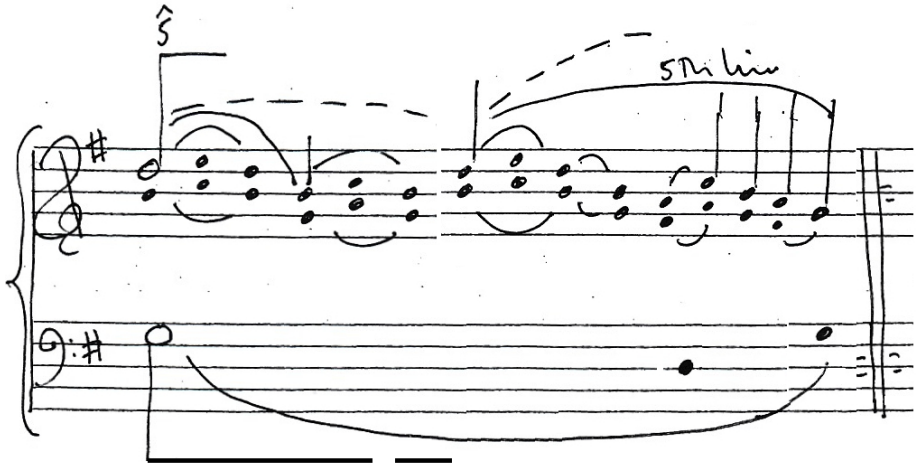
The background is the ascending *Urlinie* from ^5 to ^8 identified by David Neumeyer in a *Journal of Music Theory* article published in 1987. It matches the primary harmonic progression exactly. The only alternative would be the default ^3, and that would be so contorted as to be implausible (not to mention unmusical).

WoO8n6, trio.



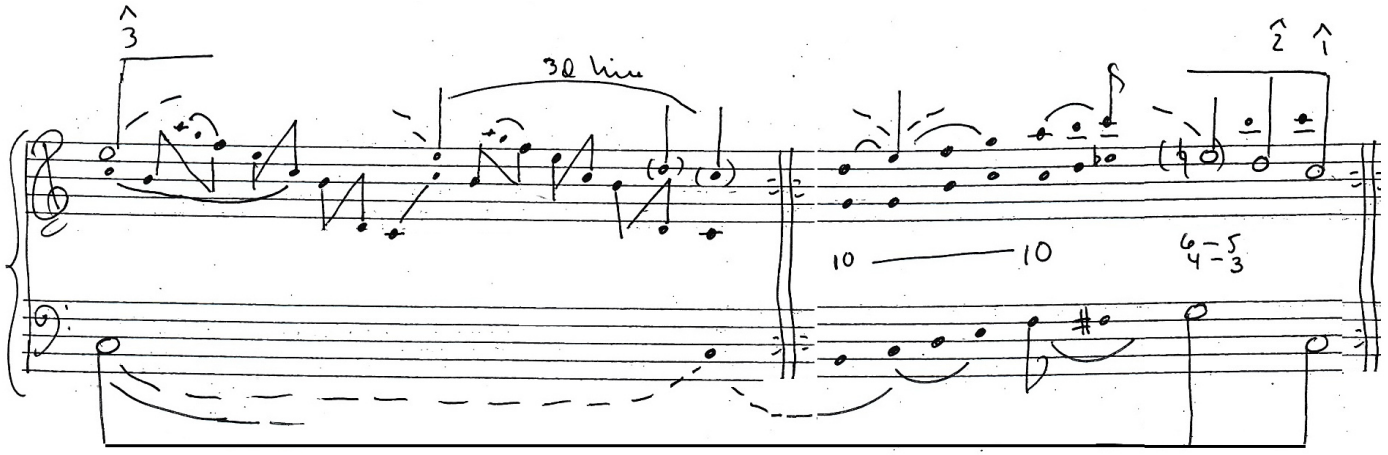
After the previous two examples, this should seem quite easy, with its simple diatonic progressions and repetitions of an embellished ^5-^3 figure. Both harmony and repetitious melody are explained by the genre, which is not the menuet at all but the Ländler, the slower variant of the waltz.

Because both sections have the same cadence, we might read the end of the A section the same way as the B section -- see at right, where a middleground fifth-line closes the melody.



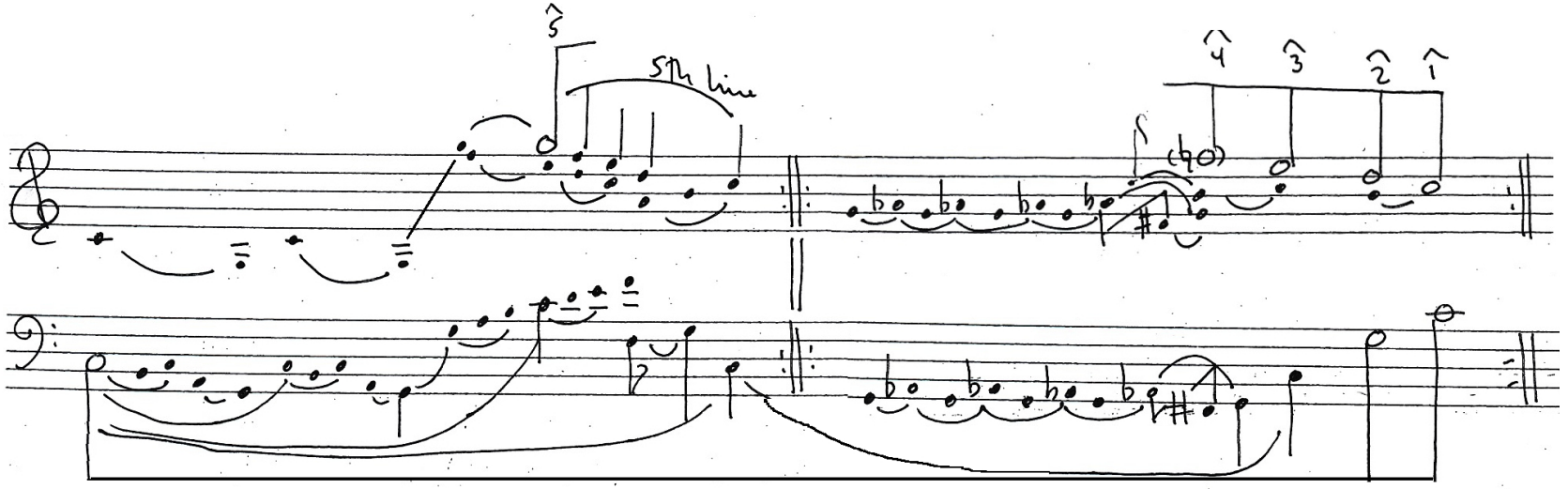
WoO8n7.

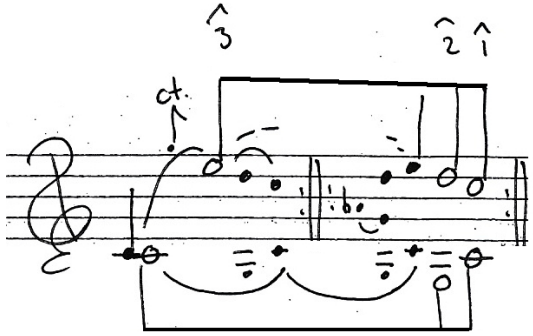
Unfolded intervals dominate in the A section, parallel tenths in the opening of section B.



WoO8n7, trio.

Here ^5 is more likely, but note that ^4 has to be implied. The alternative is ^3 and gives us an opportunity to show a simplified one-staff reading of the sort one finds occasionally in the literature (it echoes a close- register two-part counterpoint):





APPENDIX 2: BACKGROUND/MIDDLEGROUND BASS-LINE SKETCHES FOR MOZART, MENUETS, K. 599, 601, & 604

Keyboard versions of Mozart's K. 599, 601, & 604, were published in 1791, simultaneously with the parts for two violins and bass (the popular "Linzer Geiger" ensemble). Here we have reproduced the first edition,[58] to which we add rough annotations for background/middleground I-V-I bass patterns and suggestions for the first *Urlinie* tone. In the routine phase of constructing a graph, you should "charge through" to a plausible guess about the background as quickly as possible, since decisions about everything else—and of course all notational details—follow from that.

But then go back and forth between levels, locating devices (such as reaching over, lines, etc.) and adjusting the contents—even the background—accordingly. If you remain uncertain about the background, construct more or less formal graphs of all three types—from ^3, from ^5, and from ^8 (if this last is at least plausible)—and use process of elimination to find the most convincing one.

The preceding may sound familiar: it's the advice we offered in the section of Chapter 4 on the chorale "Du Friedensfürst, Herr Jesu Christ" in J. S. Bach's setting: "The actual work of doing a Schenkerian analysis necessarily involves *both* reduction and a reading of composing-out, but the emphasis ultimately must be placed mainly on the latter, since a final set of graphs is first and foremost an elucidation of the composing-out process." Here again are the five stages of analysis (pp. 48-49), in condensed form: (1) construct a bass-line sketch; (2) determine the first note of the fundamental line; (3) proceed with the "formal" construction of the graphs, starting with the background; (4) when the foreground graph is completed, read the set of graphs in reverse—that is, from foreground to background, or in "reductive" order—to make sure there are no gaps in the logical sequence from one level to the next or failures to represent your interpretation accurately; (5) if appropriate, add text commentary to suit your purpose.[59]

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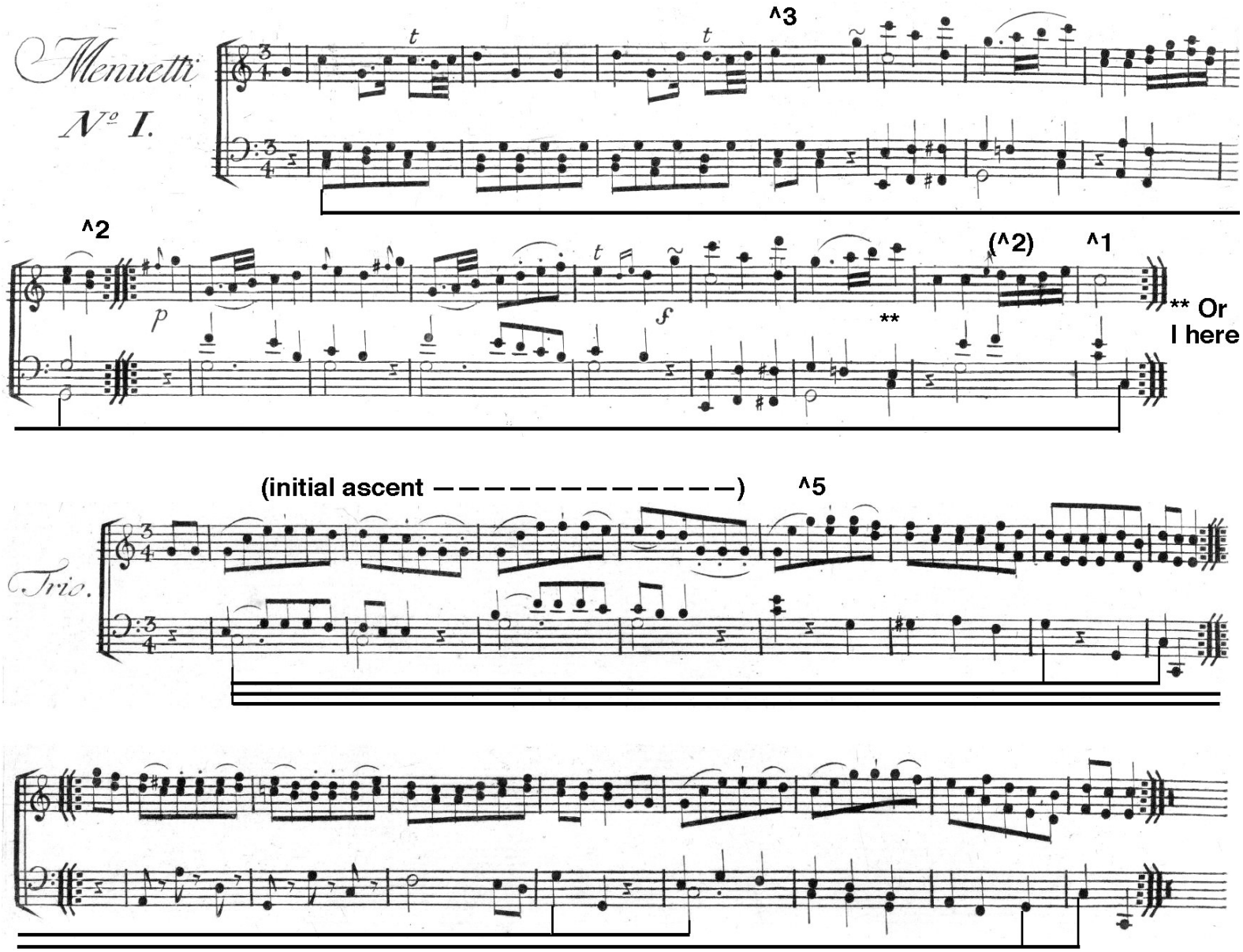
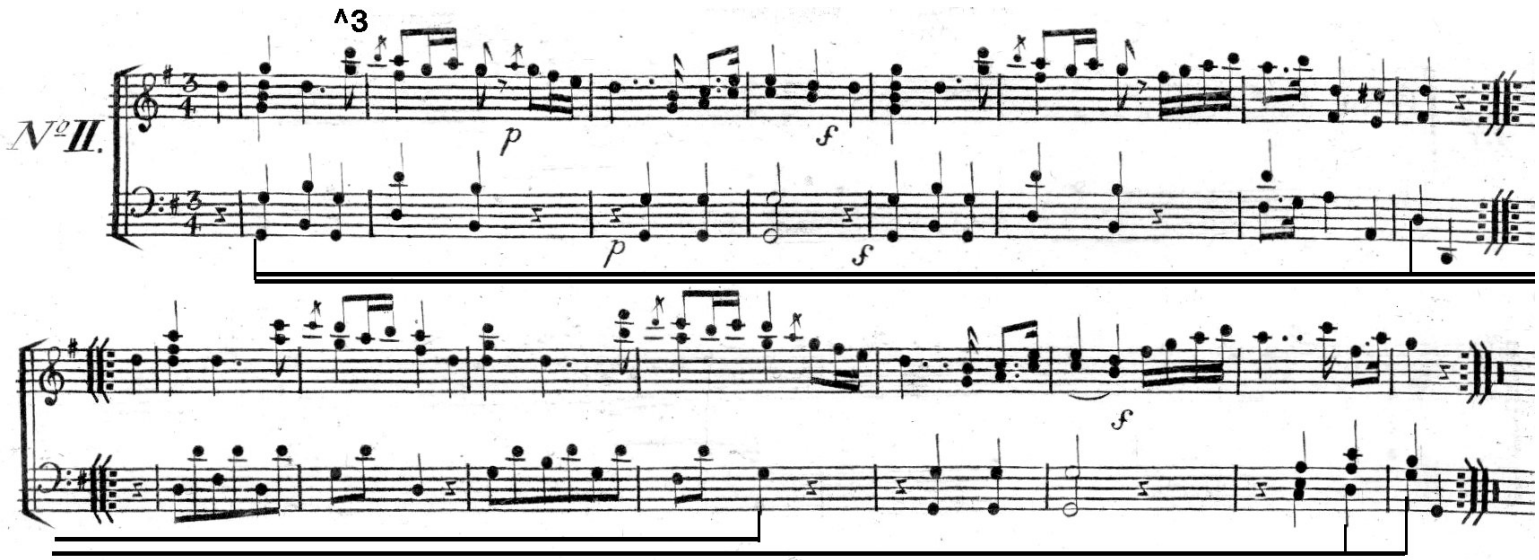
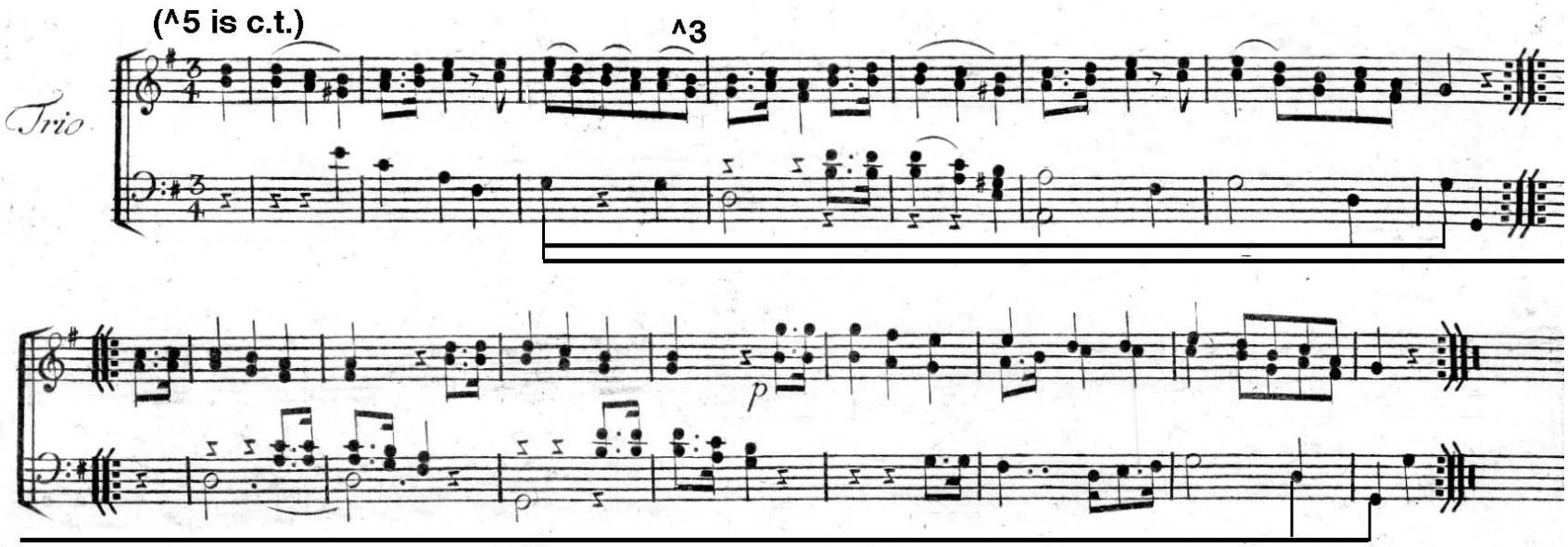
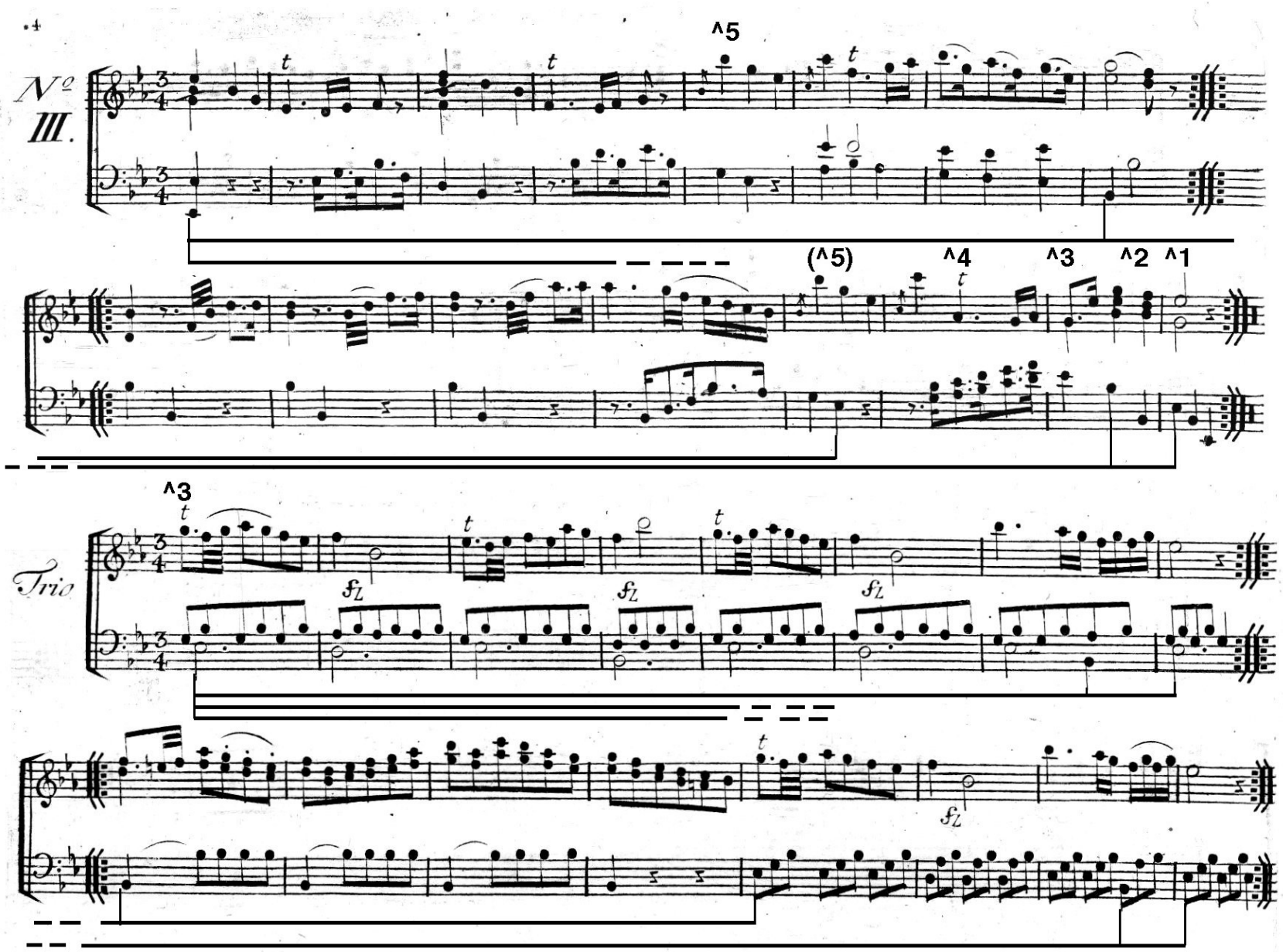
[58] The edition was published as *XII Minuetti*, with K. 599 as numbers 1-6, K. 601 as 7-10, and K. 604 as 11 & 12.

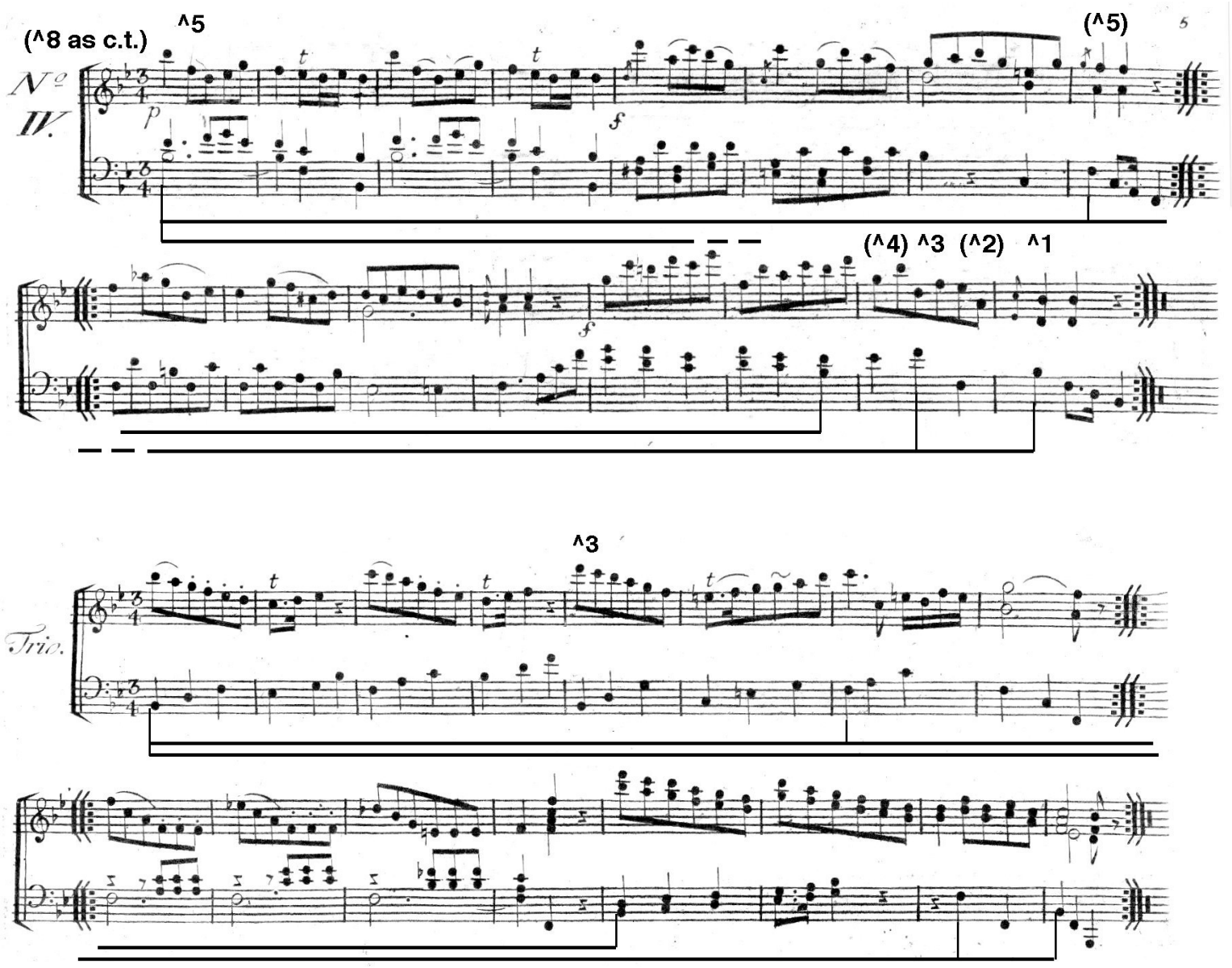
[59] Such text may be explanation of something not clear in the graph or it may point to something of particular interest. One can also add annotations to the graph itself—brackets and labels for motives, for example. Otherwise, text is used for commentary, which depends entirely on "your purpose": interpretative, historical-stylistic, theoretical, or hermeneutical.

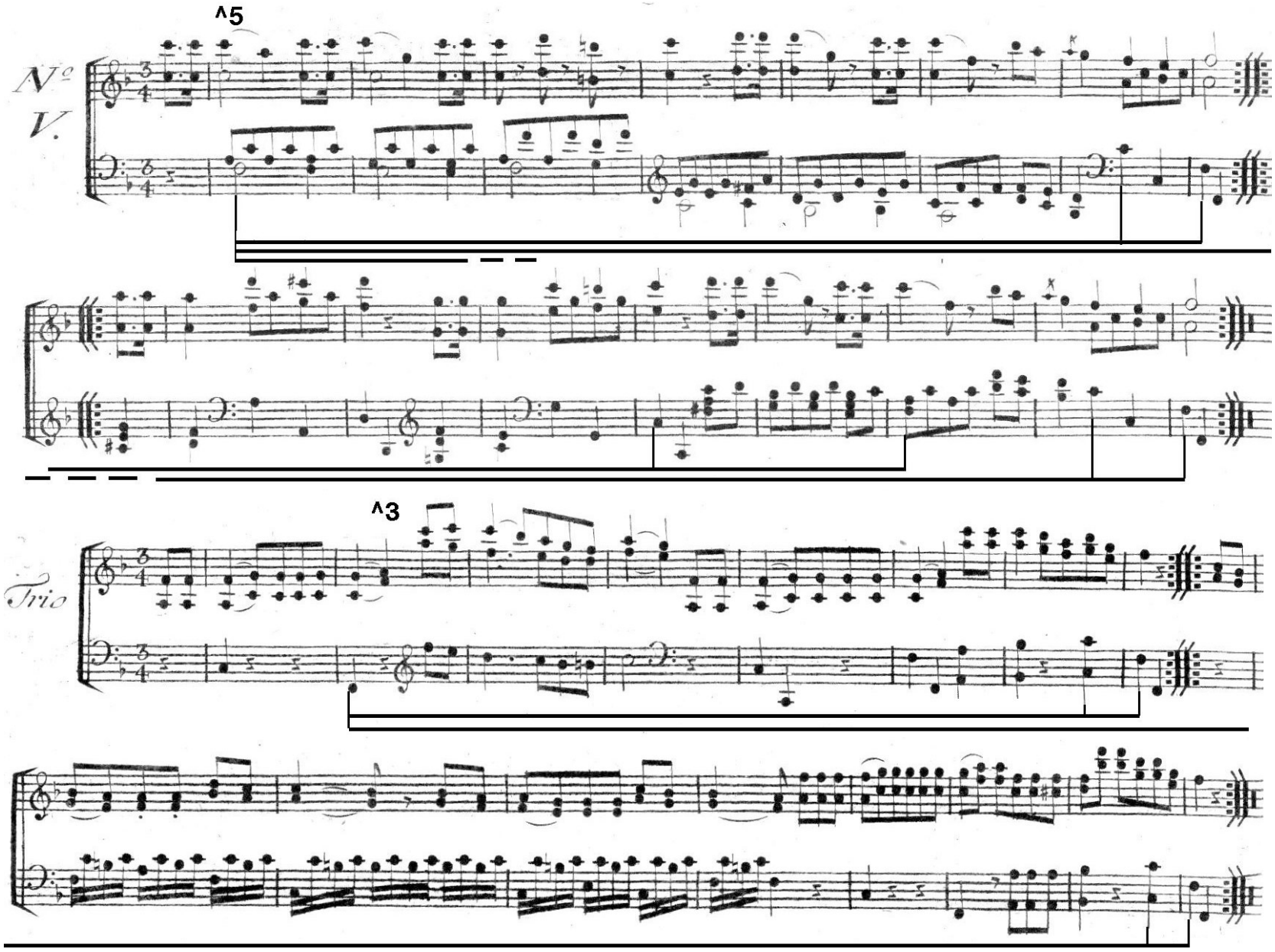

Menuetti
N° I.
^3
^2
(^2)
^1
** Or
I here
(initial ascent ————————————)
^5
Trio.

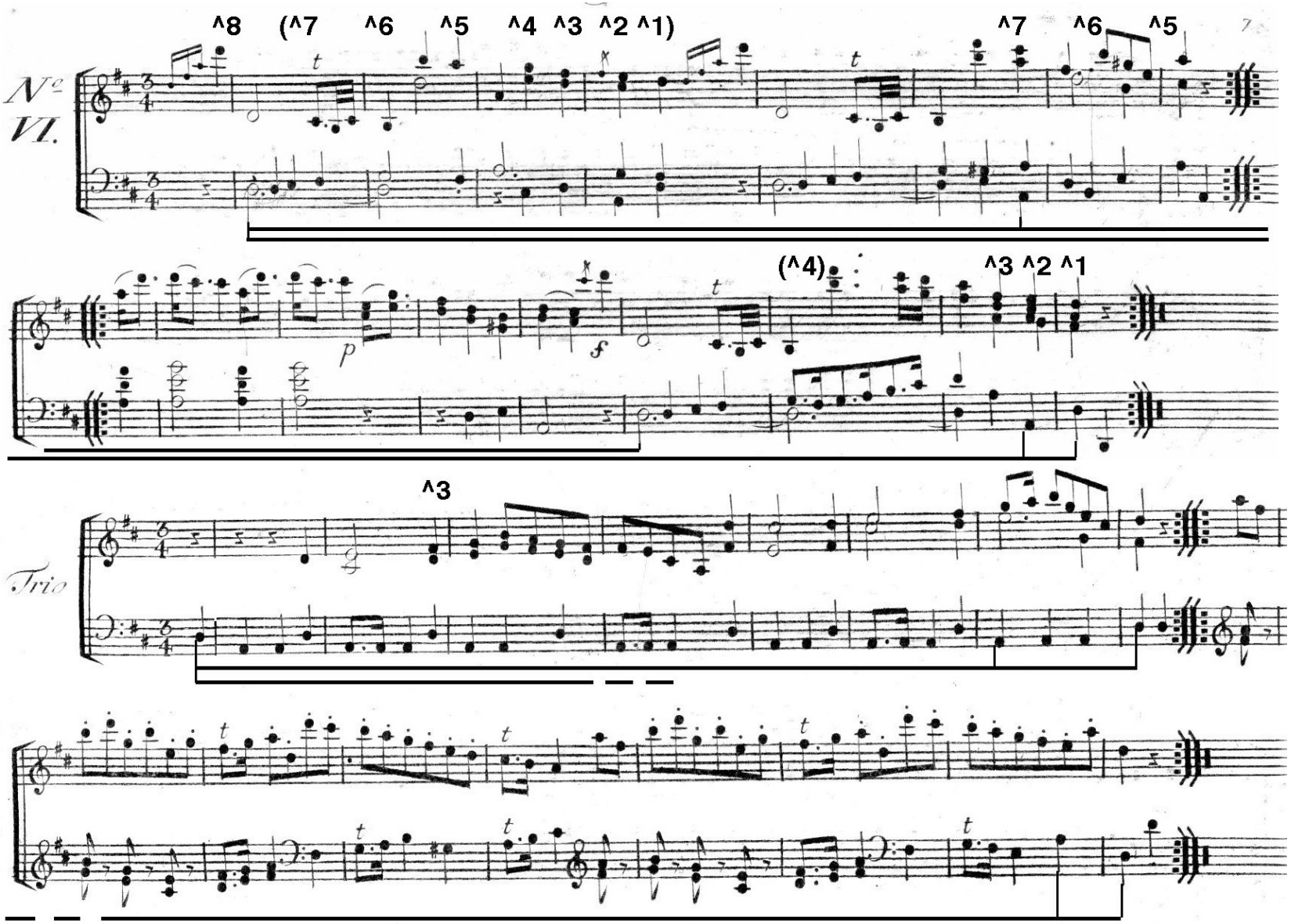

^3
N°II.
p
f
p
f
f

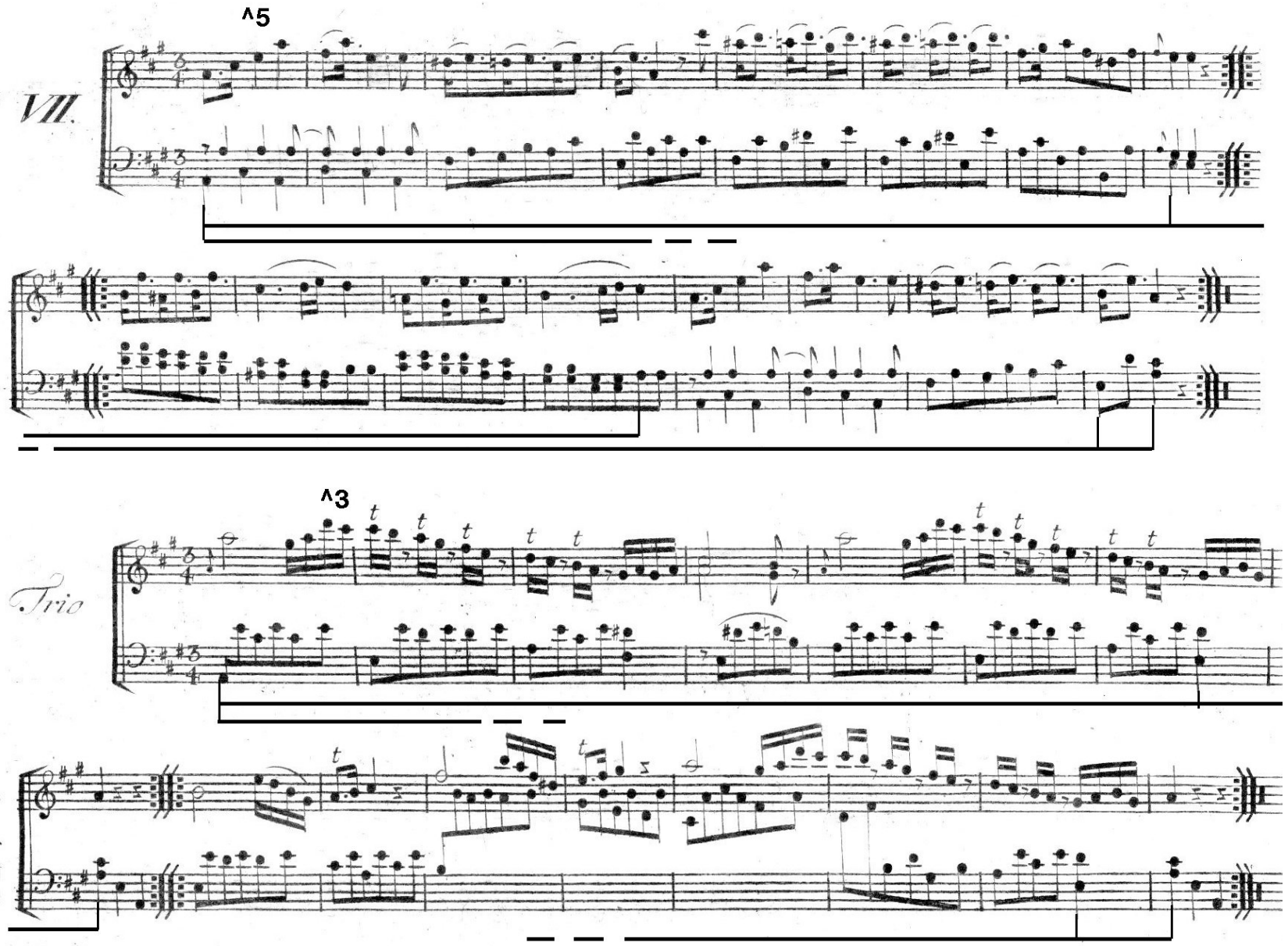

(^5 is c.t.)
^3
Trio
p

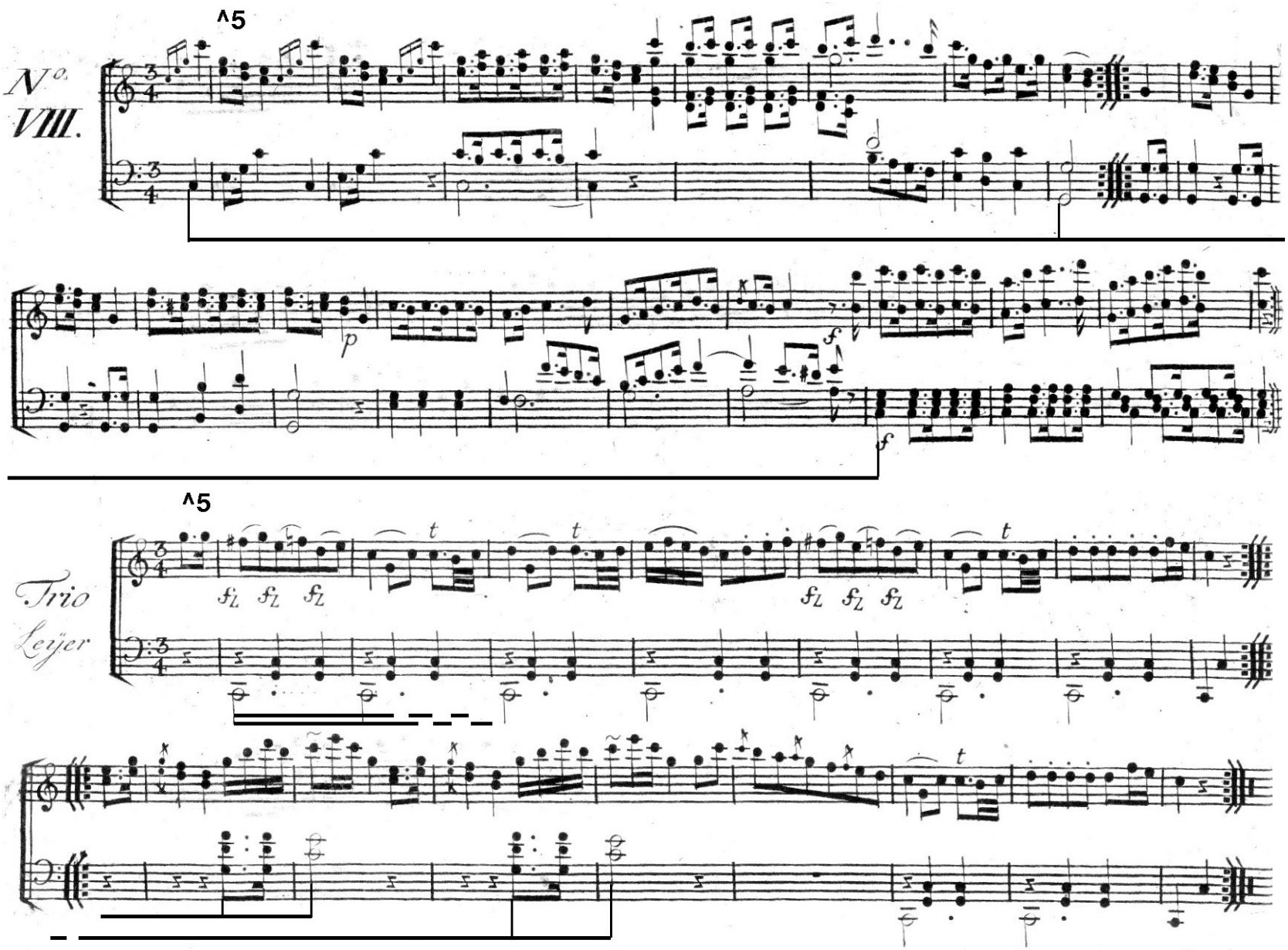

4
№ III.
^5
(^5)
^4
^3
^2
^1
Trio
^3
fz

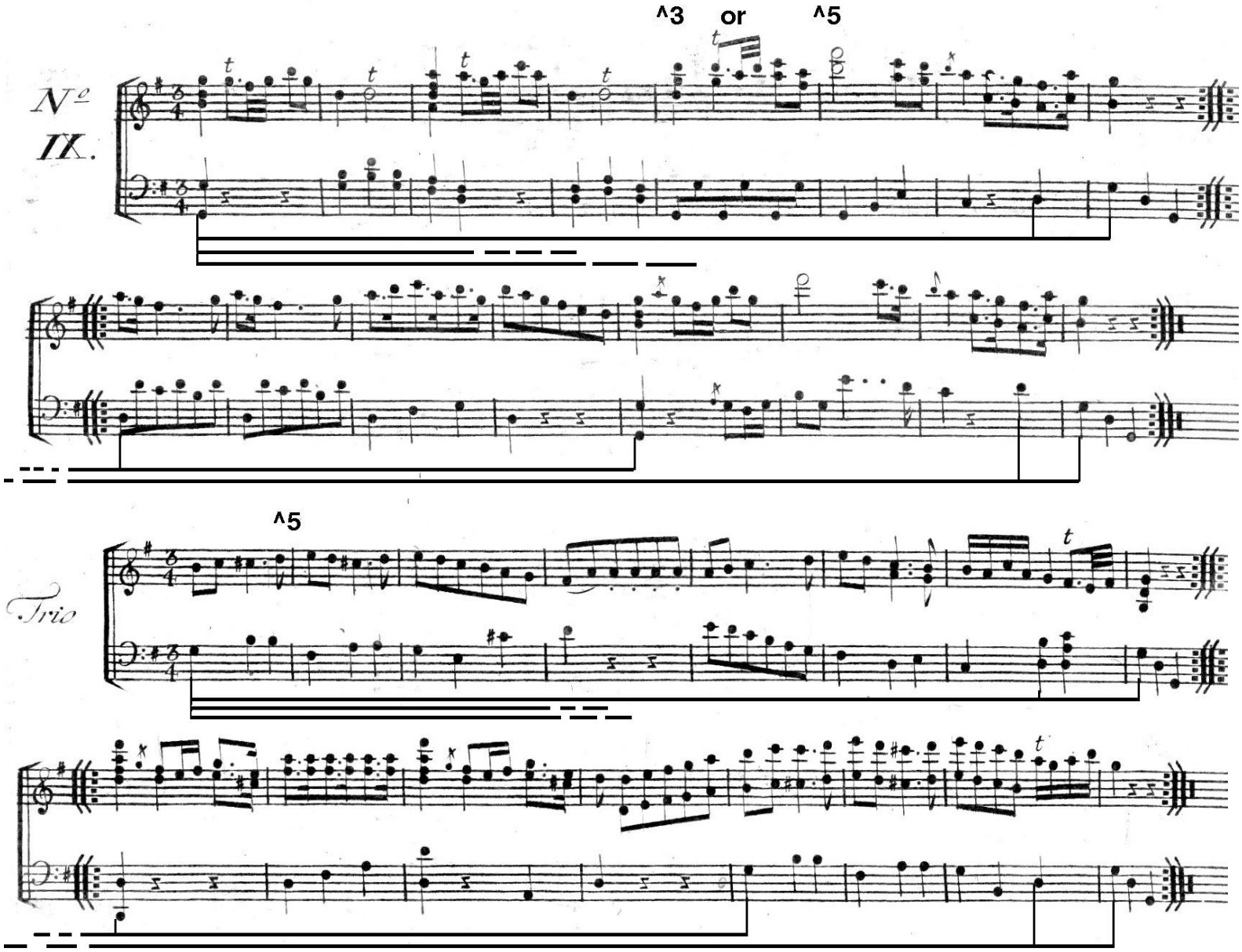

(^8 as c.t.)
^5
(^5)
(^4) ^3 (^2) ^1
^3
Trio.

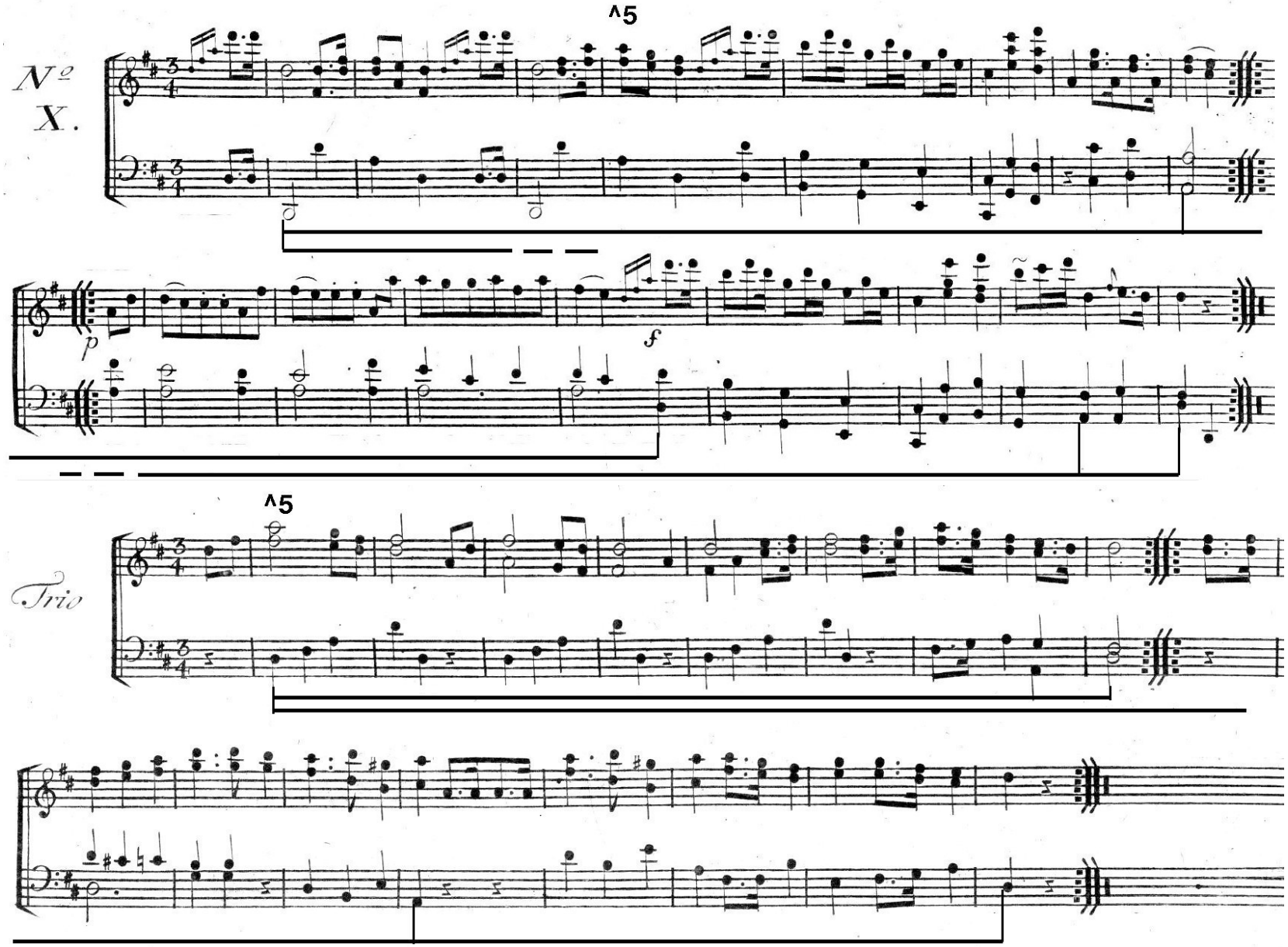

^5
N°
V.
^3
Trio

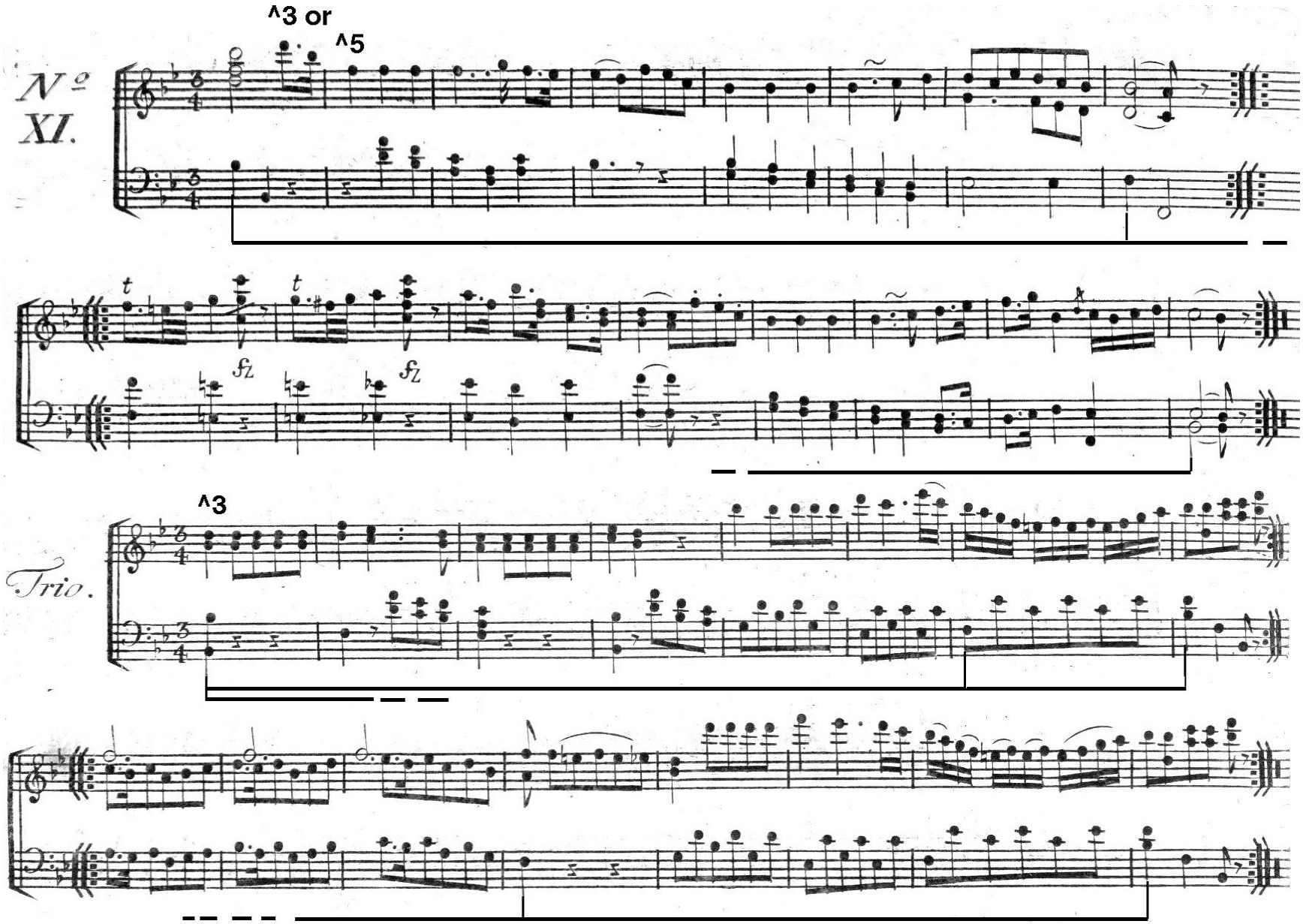

^8 (^7 ^6 ^5 ^4 ^3 ^2 ^1)
^7 ^6 ^5
N° VI.
(^4)
^3 ^2 ^1
^3
Trio

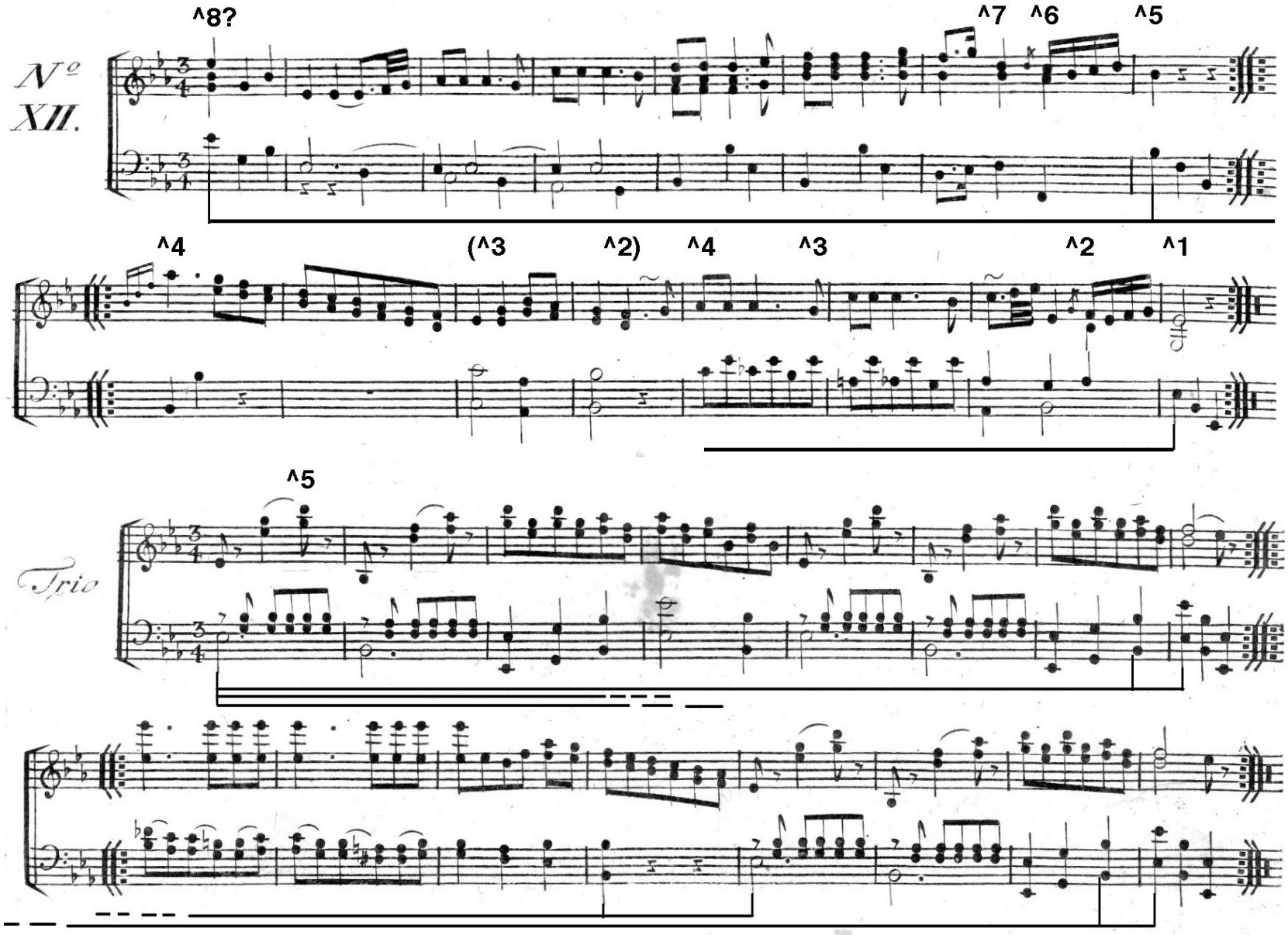

^5
VII.
^3
Trio


^5
No. VIII.
p
f
f
^5
Trio
Leijer
t
t
t
t


^3 or ^5
N^o IX.
^5
Trio


^5
Nº X.
p
f
^5
Trio


^3 or
^5
N.º
XI.
t
t
fz
fz
^3
Trio.


^8?
^7
^6
^5
Nº XII.
^4
(^3
^2)
^4
^3
^2
^1
^5
Trio

APPENDIX 3: TABLES OF CONTENTS FOR FILES 2 AND 3

File 2 is titled *A Guide to Schenkerian Analysis, Appendices*.

Here is its table of contents:

File 3 is titled *A Guide to Schenkerian Analysis, Deleted Text*.

Here is its table of contents:

Chapter 3. Structural Bass Patterns and Formal Design [Three examples]

PART II: COMPLETE ANALYSES

Chapter 4. Preliminary: Informal Introduction to Upper-Voice Analysis	[Note on counterpoint]
Chapter 5. Three Analysis Narratives	[Two of three narratives]
Chapter 6. Middleground and Foreground Techniques	[Four examples and text]
Chapter 7. Essay on Chopin, Prelude in Ab Major, op. 28, no. 17	[None]
Chapter 8. Fundamental Structures and Formal Design	[Introduction and one example]
Chapter 9. Analysis of Music before Bach and after Brahms	["before Bach" only][60]

[60] These sections from the original publication were not included in any of the three files here: the analysis of Chopin Prelude in Ab major in Chapter 7, the "after Brahms" section of Chapter 9, Exercises for Part I, Exercises for Part II, and the Bibliographical Notes. The Chopin Prelude analysis was replaced by the note on motivic analysis (Chapter 6, final section). The "after Brahms" section will be incorporated into an essay on linear analysis (in preparation). The exercises were replaced by Appendices 1 and 2 above, pp. 95-132.